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ROCHESTER, NEW YORK

American Fruits

An International Journal for Nurserymen, Growers, Dealers and Shippers of Fruits and the General Consumer, Circulating in the United States, Canada and Abroad

Entered August 4, 1904, at Rochester, N. Y. Post Office as second-class mail matter,

Vol. III

ROCHESTER, N. Y., APRIL, 1905

No. 1

STEPHENS ON SPRAYING.

Fingus Diseases Often Responsible for Fruit Loss Attributed to Weather or Unknown Conditions — Bordeaux Mixture Does Double Duty of Killing Codling Larvæ and Preventing Fungus Spores.

E. F. STEPHENS, NEBRASKA.

Scarcely a decade has passed since farmers and fruit growers were saying to each other: "Is it worth while to spray? Do the benefits derived from spraying exceed the expense and trouble?"

This inquiry has now given way to the question, "When and how must me spray to secure the best results, and what is the

best material to use?"
In all the older fruit districts of the state unsprayed orchards have a large percentage of wormy fruit, and are subject to fungus diseases. These diseases, which have only recently become troublesome here in Nebraska, are oftentimes responsible for three-fourths of the fruit loss, which is not infrequently attributed to the weather or to

causes unknown.

We are now compelled to face the problem of how best to guard against the codling moth, and also the equally difficult question of how to combat and control fungus diseases. Fortunately, the Bordeaux mixture used in preventing the germination of fungus spores, and the arsenical poisons used in killing the larvae of the codling moth may be combined in one application and judicious and repeated sprayings should effectively control both.

In combating both the codling moth and the fungus diseases, it is necessary to spray at least four times. The first spray, applied before the buds open, is distinctively a fungicide, but the addition of some poison is useful to destroy the bud moth and

canker worm.

The second spraying of Bordeaux and arsenical poisons combined is probably the most important of all, and is applied just after the petals have fallen and before the calyx closes. Make it thorough.

The third spray, of the same composition as the second, applied a week or ten days later, is chiefly to remedy the defects in the previous one, but also furnishes an additional supply of poison for the larvae just hatching out

hatching out.

G

In the fourth spraying the amount of copper sulphate is reduced, the arsenical poisons being the same as in the other two applications. This is intended to catch the second brood of larvae and to continue the attack on fungus spores.

Banding the trees has proven a useful adjunct to spraying where the orchardist has time to give them the attention needed.

The results obtained and the satisfaction derived from spraying depends very largely upon its thoroughness. By all means spray systematically. Do not miss even the small-

est branch. Remember that the eggs of one moth will produce numberless larvae, and that one small area of fungus growth under favorable conditions will give off spores enough to infect an entire orchard with scab or bitter rot.

PROMINENT MICHIGAN GROWER.

Prominent among the men who have made Michigan horticulture famous is Charles J. Monroe of South Haven, whose portrait accompanies this sketch.

portrait accompanies this sketch.

Born. on a farm in Lawrence, Van
Buren County, and living there until he
was 18, he was influenced by the common
sight of a fine home orchard of all kinds
of fruit, while small fruits grew wild in
abundance. He was a student at the
Agricultural College two and one-half
years.



HON. CHARLES J. MONROE. SOUTH HAVEN, MICH.

In 1860 he commenced clearing the land on his present homestead, setting his first peach trees in 1862, since which time he has helped clear and set to various sorts of fruit about 550 acres in the vicinity of South Hayen.

South Haven.

He helped organize the South Haven Pomological Society in 1870 and has served it well, most of the time officially. He joined the Michigan State Horticultural Society more than thirty years ago and, as its president or on its executive board, has helped guide its policy for many years. Mr. Monroe is a life member and Michigan's vice-president of the American Pomological Society, presided at the organization of the National Federation of Horticultural Societies at St. Louis last October and is the president of the Michigan State Board of Agriculture. He was president of the State Senate in 1887 and a Presidential elector in 1900.

LOCAL COLD STORAGE.

How It Would Aid Co-Operative Organizations in the Marketing and Distribution of Fruit—An Expert Refers to the Advantages of the Gravity Brine System for Keeping Fruit.

One of the speakers selected for the annual convention of the American Association of Nurserymen at West Baden Springs, Ind., in June, is Madison Cooper, of Minneapolis, Minn. Mr. Cooper is an expert in the matter of cold storage for fruit. Upon this subject he said recently:

"In my opinion there is an under-consumption, rather than an over-production of fruit, caused by lack of facilities and distributing. There are thousands of people in our larger towns and cities today who would be glad to pay a fair price for the immense amount of fruit that was allowed to go to waste in the orchards last fall, because the current price was too low to pay for harvesting. A suggestion re-ferring to co-operative organizations for selling fruit is a suggestion in the right direction. The organizations will, no doubt, help to overcome evils at present experienced in connection with the marketing and distribution of fruit. Fruit apparently not worth picking and packing last fall is now selling for \$2.00 per barrel and up-wards, if well kept. Fruit cannot be well kept without good cold storage facilities.

"I have experience,' says Mr. Cooper, "so far as ice storage is concerned, all the way from an ice house with a cold storage room in one corner of it, to the gravity brine system; and I also have had experience with the refrigerating machinery of the ammonia system.

"The gravity brine system was invented with a full appreciation of the weak features of the older ice refrigerating methods and also with a knowledge of the fact that ice, which may be secured at a nominal cost in most fruit-growing sections, is the cheapest and most desirable primary refrigerant obtainable. Ice as used with the gravity brine system is, in absolute fact, only a primary refrigerant, and has no communication whatever with the cold storage rooms. This system consists of a series of pipe coils containing chloride of calcium brine. One set of coils is placed in a tank and surrounded with broken ice and salt. As the brine is cooled it circulates from these coils into another set of coils located in the cold storage room below, being there warmed slightly by contact with the air of the storage room, it again rises to the coils surrounded by ice and salt, and again repeats the circuit.'

Mr. Cooper estimates that a cold storage plant on this system, with a capacity of 2,000 barrels, would cost \$3,500; a larger plant would cost less in proportion.

IN CENTRAL STATES

A FRUIT BANQUET

Will Appropriately Close the Thirtieth Annual Convention of the American Association of Nurserymen—Prominent Representatives to Present Practical Topics—

Illustrated Lectures
—Discussions.

The programme committee of the American Association of Nurserymen has practically completed the programme for the annual convention at West Baden Springs, Ind., on June 14th to 16th. The committee deserves much credit for the practical and excellent programme arranged. After a welcome to Indiana by Andrew J. Rhodes, a response by President E. W. Kirkpatrick, the president's address and reports by the secretary and treasurer, there will be reports by E. Albertson, for the transportation committee; Irving Rouse, for the tariff committee; C. L. Watrous, for the committee on legislation, and J. Horace McFarland, regarding the editing of the annual report.

In the afternoon of the first day of the convention the state vice-presidents will be elected. Peter Youngers, W. H. Moon and H. B. Chase will report as to negotiations with the railway freight classification committees.

H. L. Bird, Benton Harbor, Mich., will lead a discussion on "The Cost of a Tree." Others who will speak on the subject are Aubrey Frink, Glen Saint Mary, Fla.; J. Horace McFarland, Harrisburg, Pa., and Herbert S. Chase, Huntsville, Ala. "The Low Prices of Ornamental Stock" is the subject of an address by Charles J. Maloy, of Ellwanger & Barry, Rochester, N. Y.

subject of an address by Charles J. Maloy, of Ellwanger & Barry, Rochester, N. Y. On Wednesday evening lectures, illustrated with stereopticon views, will be delivered by Dr. George T. Moore, of Washington, D. C., on "Soil Inoculation;" by George G. Hedgcock, of St. Louis, on "Crown Gall and Root Knot," and by J. H. Hall, South Glestonbury, Conn., on "Picking, Packing, Grading and Shipping Fruit."

On Thursday morning, June 15th, at 9 o'clock, there will be papers and discussions as follows: "A Texas Horticulturist's Experience," D. H. L. Bonner, Omen, Texas; "Best Methods of Improving Our Standards in Trees and Fruits," G. L. Taber, Glen St. Mary, Fla.; discussion by W. C. Reed, Vincennes, Ind.; "An Importer's Sorrows," James McHutchison, New York; discussion by Thomas B. Meehan, Philadelphia, Pa., and Hiram T. Jones, Elizabeth, N. J.; "Mistakes in Office Management," Thomas B. Meehan, Philadelphia.

Thursday afternoon, at 2 o'clock: "What Are the Chief Contributions to Pomology Gained From the Louisiana Exposition?" N. W. Hale, Winchester, Tenn.; discussion by J. S. Butterfield, Lee's Summit, Mo.; "Plants in Department Stores," Howard A. Chase, Philadelphia.

The session will adjourn at 3:30 p. m., when the American Nurserymen's Protective Association and the Nurserymen's Mutual Protective Association will hold their annual meetings, as per notice of the respective secretaries of those organizations.

On Thursday evening, 7:45 o'clock, there will be an illustrated lecture on "A Tree

Garden to Last a Thousand Years," by J. Horace McFarland, Harrisburg, Pa., with a discussion by J. Woodward Manning, Reading, Mass.; also a lecture on "Experimental Orchards for Nurserymen." by L. C. Corbett, horticulturist, United States Department of Agriculture.

The election of officers will take place on Friday morning; also the selection of a place for the next convention, and the appointment of a committee on resolutions. Then these papers: "Refrigeration of Nursery Stock and Storage in Cellars," Madison Cooper, Minneapolis, Minn.; "Excluding Advertisements Quoting Prices," J. M. Irvine, St. Joseph, Mo.

On Friday afternoon at 2 o'clock: "Quality vs. Quantity," by Professor John Craig, Ithaca, N. Y.; "Freight Rates," by E. Albertson, Bridgeport, Ind., with discussion by G. L. Taber, Glen St. Mary, Fla., and William Pitkin, Rochester, N. Y.



HARLAN P. KELSEY, BOSTON, MASS.

Chairman Committee on Arrangements for Nurserymen's Convention.

Answers to questions deposited in the question box will be made; the reports of committees on exhibits, and on final resolutions will be heard, and the announcement of committees will be made. Then adjournment.

Friday evening at 7 o'clock: A fruit banquet will be served, and there will be dancing after the banquet, the music being furnished by the Baden Springs Hotel Company Orchestra.

On Saturday, June 17th, there will be an excursion of the association to Mammoth Cave, Kentucky.

The New York Experiment Station at Geneva announces that the quality of certain insecticides has been the subject of much complaint; and paris green has been brought under regular inspection laws. Recent investigations made by the Station at Geneva prove that the commercial whale oil soaps are far more variable in composition than the arsenicals. So great is this variation that the Station recommends homemaking of such soaps to secure uniformity and good quality. A full account of the investigation and details of the method of making the soap are given in Bulletin 257, which is available to applicants.

APPLE CHAMPAGNES.

Prof. Carlisle's Suggestion Promises to be of Greatest Important to Orchardists—Nebraska Grower Seeks Information Government Expert Reports Conservatively on Results Already Attained.

EDITOR AMERICAN FRUITS:

In your March number of AMERICAN FRUITS I find a very interesting article by William D. Carlisle, on the subject of "Apple Cider," which, if as reported, must lead to the most remarkable results to the orchardists of any discovery of late years in the horticultural world.

I should like very much to get more information on this subject, and, if found of practical value, would take steps to thoroughly test the value of Mr. Carlisle's discovery this season. I will greatly appreciate any further information you may give on the subject, or you can refer me to any source of reliable knowledge on the question.

ISAAC POLLARD.

Nehawka, Neb., March 13, 1905.

GOVERNMENTAL INVESTIGATIONS.

EDITOR AMERICAN FRUITS:

I do not think there is anything in print which could be relied upon as a definite statement in regard to the production of fine wines or high-class champagnes from apple juice, but you will find some statements in Bulletin 88, Bureau of Chemistry, which give results achieved by the fermentation of apple juice with pure yeast ferments.

We have certainly been able to make some very fine beverages, and it is possible that, with better cellar outfit and more experience, we will be able to make a product which could really be called a wine. In fact, many people like the products we have already made better than the ordinary wines. However, I want to say that it is not at all probable that we shall ever make a product "equal to the best champagne." I remember that Mr. Carlisle made some statements of this sort, but it does not appear that he ever made a product which warranted any such statement.

WILLIAM B. ALWOOD.
Special Agent in Charge of Fermentation
Investigations.
Washington, D. C.

HOW TO REACH WEST BADEN.

West Baden Springs may be reached from Chicago and Louisville via the Monon route directly, from Cincinnati and St. Louis via the B. & O. S. W. R. R. and from Buffalo via the Lake Shore and Big Four route to Greencastle, Ind., thence by the Monon route. Eastern nurserymen may board a Pullman coach in Buffalo on the Lake Shore railroad at 9.43 p. m. Monday June 12th, arriving at Greencastle at 12.44 p. m. the next day and via the Monon route at West Baden Springs at 5.55 p. m., leaving Greencastle at 2.18 p. m.

Fruit growers of Benton Harbor, Mich., and vicinity, have decided to use a central packing house, instead of packing fruit in the orchards.

UNDER SOUTHERN SKIES

HOW HALE STARTED.

Origin of the Famous Peach Orchards of the Best Known Peach Grower in the World —The True History of "Henry and Lulu; or the Darkey and the Mule."

J. H. HALE, GEORGIA.

Near Fort Valley, in Houston County, is a broad and level plateau, elevated nearly 500 feet above the sea level, with a rich, brown loam, underlaid by red clay. I found old native peach trees fruiting nearly every year, and the location seemed the most southerly limit of our country, where the best strains of peaches can be perfected. Land was cheap and good and negro labor abundant. A few planters had made quite a start in orcharding, and I could see that here the large and late peaches of the North could be ripened and got to market alread of the small and inferior early varieties of the Middle States.

About 100 acres was the limit of my ambition and my bank account, but when I found that the best plantation in all that region was for sale at a moderate price, and that its thousand acres would only be sold in one tract, I promptly took an option on it, thinking I could interest people at the North, sell it out in blocks, and keep for myself the 100 acres or so I wanted. But no one had faith in the enterprise, even though I offered the land at

cost.

On further thinking the matter over, I could see that a large orchard could be handled much better and cheaper proportionately than a small one; so I borrowed the money, bought the whole tract and undertook to organize a stock company to equip and run it. Failing at first in this endeavor, I found a horticultural friend in the West who wanted to try the Southern climate, and who agreed to invest \$20,000, take one-half interest and superintend the enterprise. I went ahead at once and contracted for 125,000 trees and a carload of farm machinery and supplies.

Just at this time another peach crop on the Connecticut farm furnished the money to pay for the Southern land, and things seemed to be coming my way, when the promised Western partner, unable to realize the expected cash, dropped out of the enterprise. Trees and machinery had been shipped and must be paid for, while to connect them with the farm and keep things going would take much more money. I did not want such a vast orchard, but it was too late to turn back, wherefore I explained the situation to my banker that it was "money or bust." He agreed to advance the \$15,000 necessary to start the enterprise, with a caution not to exceed the amount and call for more.

Taking from the Connecticut farm a few laborers skilled in orchard work, I reached Georgia in November, 1891, only to find the plantation house burned. It took us three weeks to erect a barn, and with the mules on the ground floor, we made our quarters in the loft, and a jolly winter was spent. A surveyor was employed to locate a central avenue through the place, and the whole was planted out in blocks 50x100 feet.

Trees are cultivated more easily if in proper alignment; so, after the field was

planted I set the surveyor running lines for the rows of trees. He had not been working long when one of the old plantation darkeys came, hat in hand, and said: "Cap'n, I reckon it cost a right smart o' money to do it dat way. Lulu and I can do it a heap sight quicker, and I reckon about as well as dat ar man wid de machine."

On inquiry, I found that Lulu was his old gray mule. I had my doubts, but at his earnest pleading consented that he should make a trial on a corner block, where it would not show much. Old Henry cut three long, straight poles from the woods; then some tufts of cotton were tied around the tops of the poles to make them white and more easily seen at a distance. The poles were just the length of the distance wanted between the rows, so a standard of measure was always at



J. H. HALE, GEORGIA.

hand. Placing one pole perfectly upright on the corner of a block, where the first row was to stand, Lulu was headed for the further end of the field, keeping the poles always in sight midway between her long, upright ears, so that Henry had a sight that made him aim true. I overlooked operations until the third row was finished, and then rushed off to stop the surveyor and turn the whole job over to Lulu. The work was absolutely perfect, and now, with more than 250,000 trees in what I am often told is the best arranged orchard in America, I give credit to the darky and the mule for the orderly way in which the trees are planted.

ANOTHER TENNESSEE NURSERY.

At a recent meeting of the Farmers' Institute of Lawrence County, Tennessee, at Lawrenceburg, C. J. Swartz, of Portland, Ind., addressed the meeting upon the subject of a general fruit nursery somewhere in Tennessee, and expressed the opinion that Lawrence county was suitable for the purpose. Lawrence county has a nursery now which is thriving, but it does not nearly supply the local demand for fruit trees. Orchards are being planted every year, and fruit culture is proving very profitable. One farmer pledged himself to plant 100 acres of fruit trees this year.

ANOTHER BIG ORCHARD.

Largest in Alabama to Be Conducted By Irving Jacquay, Well-Known Nurseryman of Benton Harbor, Mich.—To Transfer His Fruit-Growing and Nursery Work to the South.

The trees are planted near the little station of Ansley on the Atlantic Coast Line Railway, between Troy and the Montgomery County line. The soil is here inclined to be sandy, having nevertheless a firm clay foundation. The hillsides and plains are sunny and the air which stirs the young peach trees is soft and balmy.

Mr. Jacquay is not an idealist or a dreamer, says a writer in the Montgomery, Ala., Advertiser. Unless he felt within himself the assurance that there could be no misfortune to his enterprise, no mishap which would prevent the coming in of returns, he would never have put thousands of dollars in Pike County soil. Mr. Jacquay in a signed letter has paid the highest of compliments to Pike County as a fruit and orchard country. The letters speak of his determination to come South for fruit growing and nursery work. It tells of his thorough investigation of all possible fields for orchards from Western Texas to the Atlantic Ocean. The sought-for spot he found in Pike. In the character of the soil, in the nature of the climate, in the convenience of transportation and in the cheapness of labor, Mr. Jacquay declared that the county of his adoption was the best adapted for fruit growing that he had

Strawberry-growing and general truck farming will be features of Mr. Jacquay's enterprise.

APPLE MARKET IN CINCINNATI.

EDITOR AMERICAN FRUITS:

There is a slight reaction in our market, due to the fact that up to ten days ago our market was the best in the country, and every dealer here encouraged his shippers to let the apples come, and judging by the way they responded, the dealers and speculators are still "long" on their holdings.

However, in the face of these heavy re-

However, in the face of these heavy receipts, the demand for No. 1 stock continues good, and on this grade we can encourage shipments. No. 1 well-colored Baldwins will bring \$2.50; large, well-colored Kings, \$3.50; Spies, \$2.50 to \$2.75; Russetts, \$2.50 to \$2.75. Greenings are easier, best stock selling at \$2.25. Anything not grading No. 1 will bring 50 cents to 75 cents under these quotations. Weather conditions are good here, and apples are holding up nicely. We look for a continued successful crop.

S. AND M. WEIL CO.

March 14, 1905.

F. G. Withoft, Dayton, Ohio, says the peach orchards of Fort Valley, Ga., are safe, and that a fine crop is expected.

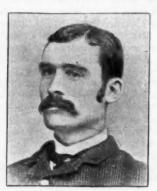
Fruit growers representing 76,800 peach trees, 8,500 apple trees and 1,100 pear trees, met at Gainesville, Ga., and organized the Northeast Georgia Peach Growers' Association, with R. H. Smith president, and R. E. Andoe secretary-treasurer.

FROM WESTERN POINTS

BIG DAKOTA ENTERPRISE.

How One of the Largest Nurseries in the Northwest was Established in the Face of Great Difficulties—George H. Whiting Truly a Self-Made Man—Well Known as Vice-President of American Association of Nurserymen.

Geo. H. Whiting was born in Winnebago County, Illinois, April 24, 1856. He moved with his parents to Iowa in 1862; from there to Minnesota in 1869. He spent two years among the orchards and vineyards of California, from 1876 to 1879. He went to Dakota in June, 1879, where he has been ever since. All of his earthly possessions consisted of a two-year-old colt and about \$13, and the few clothes he had with him. He purchased a relinquishment on a claim and homestead, paying there-



GEORGE H. WHITING, YANKTON, S. D.

for \$30, running in debt for a greater part of this. He then ran in debt for a yoke of cattle and breaking-plow, and went to work turning over the sod.

At present he has 69 acres of land, which is pretty thoroughly covered with nursery stock and orchard. He is pretty well equipped with tools, storage cellars, packing sheds, grafting rooms, offices and fixtures, etc., and conducts a strictly catalogue business—does not employ any agents, but sells what he can through his catalogue, and jobs off his surplus to reliable nursery firms.

Mr. Whiting's first work in the handling and sale of trees was in 1881, when he began supplying his neighbors with forest seedlings, cuttings, etc., for tree claims and shelter belts around their homes. He carried on general farming until 1884, when he entered the nursery business with F. G. Dewey, at Esmond, Kingsbury County, South Dakota. Finding that section was not adapted to nursery business, he moved to Yankton in the spring of 1891, where. he has been since. His trade extends practically all over the United States, and he has a nice little trade in Northwestern Canada, and some in other foreign countries. He has always been a close student of Northwestern conditions and requirements, making a specialty of hardy varieties.

In the fall of 1889 he was elected to the first State Legislature from Kingsbury County, on the republican ticket, receiving the largest majority in the county of any

man on the ticket. He first became a member of the American Association of Nurserymen in 1890, and has been vice-president from South Dakota the most of the time since that date. Was first president of the Minnesota State Horticultural Society, which was organized in December, 1889, when he became a life member of the society; and has been actively connected with the society ever since. He is a member of the American Forestry Association.

WESTERN FRUIT JOBBERS.

Efforts are being made to induce the Western Fruit Jobbers' Association to hold its annual convention in Duluth next winter. H. B. Knudsen, of Knudsen Ferguson Fruit Company of that city, from a six weeks trip to New Orleans, Washington and Chicago, has been putting in a good word for his home city, and feels decidedly optimistic over the prospect. Kansas City is also after the convention, but Mr. Knudsen believes that Duluth's chances are just as good.

as good.

The organization is only two years old, with a membership of 140. Applications are pending, and it is believed that the roll call will be swelled to 250 or more. The association comprises fruit jobbers operating in the territory west of Chicago to the Pacific coast. Questions of transportation and other matters pertaining to the jobbers' business are discussed at the sessions. The last convention was held in Omaha in December.

FOOD VALUE OF THE APPLE.

The food value of the apple is not generally known, says George T. Powell. Its nutritive properties compare favorably with those of the potato, as shown by the following analysis:

| | Fresh Apple. | Potato. |
|----------|--------------|----------|
| | Per cent. I | er cent. |
| Water | 78.9 | 78.9 |
| Ash | 0.4 | 1.0 |
| Protein | 0.7 | 2.1 |
| Fiber | 1.2 | 0.6 |
| Nitrogen | 16.6 | 17.3 |
| Fat | 0.4 | 0.1 |

NEW FRUIT COMPANIES.

Great Northern Fruit Company, Monroe, Wash., \$20,000; C. J. Stuart and others.

Newfane Fruit, Refrigerating and Storage Company, Newfane, N. Y., \$25,000; A. T. E. Hamer, Henry Degenhard and Alfred Hurrell.

Michigan-Spencer Company, Denver, Colo., \$100,000; James L. Hamilton, Martha C. Hamilton, E. L. Green; Grand Junction.

Colville, Orchard county, Colville, Wash., \$30,000; president, Charles A. Wallace, Republic; secretary, George S. Morley, Colville.

Honduras Banana Company, Dover, Del., \$200,000.

Chattanooga Fruit Company, Chattanooga, Tenn., \$10,000; M. B. Russell, Ross S. Faxon, George E. McGee, C. W. Olson and E. W. Stuart.

Escanubia Fruit Company, Brewton, Ala., \$25,000; John T. Shanahan and others.

WESTERN ORCHARDING.

E. F. Stephens, of Crete, Neb., says that Central and far Western Nebraska has been almost unknown horticulturally. The public is tardily awakening to the fact, however, that there are in that part of the state districts as well suited to the growing of excellent fruit as the best Kansas and Colorado counties.

Cool nights, ample moisture, and bright sunshine all combine to give the high coloring and fine quality which has made Colorado fruit famous. Western Nebraska has all of these. Given fertile soil, an abundance of water either by ditch or by subirrigation, and favorable climate, there is no reason why the fruit products of Western Nebraska should not equal in excellence those of Colorado.

Mr. Stephens speaks of fine apples of the Jonathan, Ben Davis, Grimes Golden, and Missouri Pippin varieties which he saw growing in various parts of Central and far Western Nebraska. He also saw twenty-one varieties of budded peach trees all in bearing in one orchard; as well as strawberries and other small fruits in various places. Plums of the Americana and Domestica types succeed much better there than in the eastern part of the state. Apparently the dry sunny weather to which Western Nebraska is accustomed at blossoming time is favorable to pollination.

The time is coming when these fertile, well-watered western lands will be utilized in the growing of fruit in large commercial quantities.

The Arkansas Orchard Planting Association is planting 1,500 acres near Corinth, Ark., to Elberta peach trees.

Last fall there were 2,800 acres in apple orchard, the greater part of this acreage of young trees at Hood River, Ore. Farmers have been clearing land all winter, and a large number of trees will be planted this spring. The chief varieties planted are the high-priced Newtons and Spitzenbergs. A few other trees are set out as pollenizers.



SHADE BOWER OF YOUNG EVERGREENS AT GEORGE H. WHITING'S NURSERIES, YANKTON, S. D.

TRANSPORTATION MATTERS

FROM ARMOURS' VIEW.

President George B. Robbins Says Fruit Business in America is Growing by Leaps and Bounds—Can Scarcely Provide Equipment to Handle it— Icing of Cars.

President George B. Robbins, of the Armour refrigerator lines, at one of the hearings on the private car question before the House of Representatives Committee, said of the great fruit industry:

"The business is growing by leaps and bounds. In fact, we can scarcely get the equipment to handle it, although every cent we make is invested in additional facilities. Often we lose money the first year or two in building up the business. This was the case in Florida, but the fruit trade there has doubled and trebled within the past few years. Idaho is the same way. At one point in Colorado, where there was not a car of fruit a few years ago, we are now shipping 500 cars a year. Alabama is producing fruit today. Georgia has developed from 1,000 or 2,000 cars prior to 1898, when we obtained our exclusive con-

tract, to 5,000 cars last year, and next year we expect to handle 6,000 or 8,000 cars. In North Carolina, where five years ago only 700 cars of strawberries were handled, last year there were 2,900 cars. The increase in Michigan has not been so great as that in an old district; nevertheless, it is quite noticeable."

"As a rule, instead of the railroads supplying ice to the car companies, the latter furnished their own ice, and sold to the railroads besides. We supply every pound of ice used in California, Georgia, the Carolinas, and Florida, and many other of the largest shipping districts. Besides the initial ice, we supply every pound used en route, from our own stations, with our own labor, superintended by our own salaried men."

He ridiculed the idea that it would profit the railroads to own refrigerator cars, saying that in twenty years' dealings with railroad men he had found that they looked after their own interests very sharply, and he had no doubt that if this business would be profitable to the railroads they would already be engaged in it. In support of his contention Mr. Robbins quoted from the testimony of numerous railroad officials.

"The fruit is frequently loaded," he said, "before its destination or route is decided, and our cars are free to go to any destination by any route, thus saving the railroads and shippers great trouble in getting certain kinds of cars for certain business and providing a great convenience and advantage by permitting change in destination and route after loading."

Mr. Robbins stated there was no profit in the mileage on the fruit cars, as they were idle three months in the year. If it were not for the profit on refrigeration, he said, his company would be compelled to go out of business.

He also stated that, although the Pennsylvania Railroad had its own cars, the Delaware peach growers preferred the Armour cars, and his company did 90 per cent. of the business from that state.

MICHIGAN'S FRUIT CROP.

An enthusiastic Berrien county, Michigan, writer in the Chicago American, says that the cold weather of last winter had no effect upon the fruit buds and that a conservative estimate of Michigan's firuit crop the coming season is as follows:

| Acres. | Estimated crop. bu. |
|--------------------|---------------------|
| Apples210,760 | 2,769,826 |
| Peaches 71,104 | 2,622,925 |
| Raspberries 9,170 | 109,439 |
| Plums 4,933 | 164,772 |
| Cherries 2,492 | 56,674 |
| Strawberries 6,010 | 312,671 |
| Blackberries 3,182 | 71,882 |
| * Grapes 11,174 | 31,762,843 |

* Pounds.

Michigan, with 318,835 acres of fruit under cultivation, will produce this year a fruit crop representing an estimated value of \$4,514,618 to the growers.



LOOKING HOMEWARD FROM THE FIELDS. GEORGE H. WHITING'S NURSERY, YANKTON, S. D.

APPLES FOR EASTERN STATES.

For the Eastern states Professor H. E. VanDeman advises for family use: Early Harvest, Garden Royal, Early Joe, Primate, Jefferis, Fall Pippin, Grimes, Jonathan, Stayman, White Winter Pearmain, and Swaar. They are placed in order of ripening. Some may be difficult to obtain from the nurseries, says Professor VanDeman, especially Garden Royal, Primate and Swaar, but they are worth the effort to get them. It is very difficult to get late keepers that are of good quality. In selecting the trees I wish to lay stress on the need of but very few trees of each of the early and autumn varieties, because a family can only use a small amount; but of the winter proportion.

The Santa Fe Railroad Company declares that it will ignore the recent decision by the Interstate Commerce Commission, that the Santa Fe's rates on oranges are unreasonable and unjust, and that the Santa Fe and Southern Pacific are unlawfully engaged in pooling traffic in citrus fruits in Southern California.

The New York State Fruit Growers' Association has been incorporated.

FROM E. M. FERGUSON.

President of Western Fruit Jobbers' Assoclation Writes of His Contest for Lower Transportation Rates—He Represents Many State and Local Organizations.

In another column we present a communication to AMERICAN FRUITS from E. M. Ferguson, president of the Western Fruit Jobbers' Association. Mr. Ferguson expresses satisfaction over the preliminary skirmish in the effort to adjust alleged evils in the refrigerator car rates.

"The position of the Western Fruit Jobbers' Association and the other interests that I represent in this matter." says Mr. Ferguson, "is that we would consider it wise to defer action by Congress until such time as it is manifest that this so-called drastic legislation can be enacted. Any measure that does not wipe out the evil, root and branch, will instead of correcting it, only serve to complicate an already difficult situation. Congressman Stevens expressed a desire to become thoroughly informed concerning private car line evils, and I have no doubt that, when he shall

have secured the information, he will assist us in getting the legislation we desire.

"The private car line evil will never be reached effectually by any legislation short of that which annihilates it. Any law designed to continue the existing relation of car line and carrier, in my opinion, will prove a flat failure, and serve only to complicate existing conditions and further enthrone monopoly. It is better that we have no legislation until we have that which will absolutely eliminate the whole system. I believe private car line companies are operating without sanction of law."

In his address at the annual meeting of the New Jersey Horticultural Society, at Trenton, New Jersey, President William H. Skillman said: "The distribution of our fruit deserves our best attention, for it is fully as important to dispose of it advantageously as it is to grow it. It is well known that markets in our great cities are at times congested with fruit. A few of the great centers are the dumping ground from everywhere. This should not be so. If our fruit was properly distributed, we would hear but little of overproduction and glutted markets and remunerative prices would be obtained. There are plenty to consume our fruit and there is money to pay for it. There are hundreds of towns where fruit is almost unknown."

Whale oil, or fish oil, soap is made by thorough mixing of easily obtained materials, without heating. To make 40 lbs. of soap containing 60 per cent. actual soap requires 6 lbs. of caustic soda, 22 lbs. of fish oil and 1 I-2 gals. of water. The soda is first dissolved in the water and the oil then added gradually, with constant and vigorous stirring. This soap can be made at a cost of 3 cents a pound or less. Used at the rate of one pound to seven gallons of water, the solution will destroy plant lice, scales and other soft-bodied sucking insects, without injury to foliage.

AMERICAN FRUIT ABROAD

OUR LONDON LETTER.

AMERICAN SHIPPERS SHOULD CONSIDER THE HEAVY AUSTRALIAN SHIPMENTS EN ROUTE.

Tasmanian Apples 340,000 Cases, Australian 100,000—First Shipment Due in England April 8th—Great Britain Pays Large Sums for Foreign Fruit—Increasing Demand—California and Oregon Newtown Pippins and California Easter Buerre Pears Are in Favor.

[SPECIAL COVENT GARDEN CORRESPONDENCE.]

AMERICAN FRUITS Bureau, London, Eng., Mar. 15, 1905.

For the best grades of apples, the British markets are offering better prices. There has been a falling off in the shipments from the United States, owing to the severe spell of weather on the other side of the Atlantic. Recent reports from Liverpool state that apples have been scarce at that point, and the consignments have advanced in value. At Newcastle-on-Tyne prices are firm, whilst importers show an inclination to hold back stocks, with a view to an ad-Some of the fruit has shown evivance. dence of frost, and this has to be disposed of at low rates. Amongst the dessert varieties of apples popular on this side is the Oregon Newtown Pippin. The fruit usually comes to hand in the pink of condition, and there is no difficulty in making a clearance at satisfactory rates. These have lately been making from 22 shillings to 24 shillings a case. California Newton Pippins are also in favor, and are worth about 18 shillings a case.

AUSTRALIAN FRUIT CANNING.

Shippers should exercise caution in not over-flooding the market, for it must be borne in mind that we shall soon be well supplied with the Australian apples, and the public, with their usual fondness for change, are bound to take up the newcomers. It is estimated that from Hobart, Tasmania, the number of cases to be sent will be 349,000, and from the Australian ports about 100,000 cases. The first shipment is due to arrive in England on April 8th, and these will be continued weekly until June 14th. Last year the season proved unfavorable for the Australian trade, owing to the excessive shipments, but this mistake will no doubt not be repeated.

Small quantities of California Easter Buerre pears have been on the London markets, and have made from 16 shillings to 17 shillings a half case. They have now to face the strong competition offered by the arrival of Argentine and Cape Williams.

The most is being made of the seedless apples recently sold at 30 shillings each at Covent Garden. Messrs. W. B. Shearn & Sons, the purchasers, are now arranging a function at Covent Garden, at which the apples will be cut open. A small charge is to be made for admission, the proceeds being devoted to charity.

LARGE SUMS FOR FOREIGN FRUIT.

Some figures were given at a lecture at Montrose recently, to show the large and colonial fruit. Spain stands at the head of the countries from which Great Britain draws supplies. The total for the year being \$600,000 for nuts, grapes, and oranges. The United States sends over apples to the value of £1,200,000 in a year, and Canada about £800,000 worth. Italy sends lemons, citrons, to the total of £300,000. Nuts come from all over the world to the value of £1,100,000, whilst almonds amount to £500,000. The Canary and West Indian Islands exported to Britain last year almost 4,000,000 bunches of bananas, with a value of £1,380,000. For the week ended February 25th the imports to this country were as follows: Apples, 52,866 cwts.; bananas, 52,875 bunches; lemons, 4,462 cwts.; oranges, 112,618 cwts.

AN INCREASING DEMAND.

There is an increasing demand for fruit in Britain. The public are beginning to realize the great advantages which are associated with a fruit distary. A number of restaurants conducted on strict vegetarian lines prosper in London, and at one dedicated to Saint George, a popular feature is the array of American dishes

ture is the array of American dishes.

The capabilities of British Columbia as a fruit-growing center, were explained on Tuesday at a meeting of the Royal Horticultural Society, by the Hon. J. H. Turner, the agent-general for the colony. Mr. Turner was very optimistic as to the future prospects of the growers in that part of the empire. The society is doing its utmost to make known the produce grown beyond the sea. In the autumn a successful show of colonial fruit was held, and this is to be followed by one this month.

SPRING ACTIVITY EXPECTED.

Trade on the British fruit markets has been somewhat dull this winter, owing to the great depression which has more or less affected all trades. It is hoped that, with the arrival of spring and a freer circulation of money, business will brighten up. The working classes are becoming better customers of the fruit retailer, and when they feel the pinch of depression, the trade is bound to suffer. The tendency of grocers and stores to retail fruit is increasing, and this should make it better for both the home and the American consignment. W. H. A.

Charles J. Brown, of Brown Brothers Company, nurserymen, Rochester, N. Y., has offered to give shade trees sufficient to plant eleven miles of road in Monroe County, N. Y.

Roused by the criticisms of food experts and magazine articles condemning canned foods as poisonous, the canners and packers of vegetables and fruit in the United States have formed at a Pittsburg meeting a national body to be known as the "National Association of Packers of Pure Canned Food." The new orianization numbers among its members the largest packers in the country and represents even at this stage a capitalization of millions of dollars. William G. Rouse is the president.

APPLES FOR EXPORT.

Practical Suggestions to the Fruit-Growers of America by One of the Most Extensive Exporters in This Country—How to Meet the European Demand For Fruit.

So thoroughly practical were the suggestions offered to fruit growers who would supply the European markets, by W. N. White, of New York city, one of the largest exporters in the country, that we reproduce the principal points he made:

"If England has a good crop of fall apples, Americans can market competing varieties only at a disadvantage," said Mr. White. "One year there was a short crop in Europe, and American fall apples sold high, with the result that the impression was formed that England can and will take anything. This is not so; England wants good quality at a reasonable price. It is not dependent wholly upon American fruit. At present more fruit is raised, head for head, in England than in America. In Middlesex county there are 16,000 acres in apple orchards, and in Devon 56,000. Many other counties have large acreages also.

"Too many varieties are grown, especially too many sweet sorts. There will always be enough for cider, evaporating, etc. What growers should plant are early-bearing commercial kinds. The Newtown is the leading apple, so far as price and quality are concerned. This is practically extinct in New York state. Oregon furnishes the best. Growers there attend to their trees. They show their courage when they thin out half the crop while the fruit is very small. This practice gives them an equal number of boxes, because the specimens are large. The price is doubled in many cases. Pears from New York state, previous to the failure of the California crop a few years ago, were unprofitable to ship. At present good Bartletts and Duchess can be sent at a profit, as there is a good British pear market. Plums, if picked somewhat early, will ripen on the way and do well. The Victoria is a good variety. Quinces should be tried; there is probably a market for them, but it must be tested experimentally. Peaches are sure to fail in the present package. There should be a market with a better carrier.

"In packing barrels of apples many growers still do the work badly. They fill the barrel too full without shaking enough, and then expect pressing down two, three or more inches of apples will make the package solid. It does, but almost every apple is bruised and a large proportion spoil before arrival in Europe. It is essential to shake the barrel at least three times while filling; four times is better, if time can be spared, as it should be. The pressing then need not be so violent as to injure any specimens. Apples should be packed tight, but not bruised."

M. Louis Leaman, Paris, France, called upon the commissioner of agriculture at Richmond, Va., last month and announced that he had come to America to engage in grape and fruit raising.

In Fruit, Nursery and Commission Circles

J. W. Hecker is planting 1,000 Elberta peach trees on his farm near Camden, Ark.

Strong arguments are made in favor of the establishment of small canneries. In a number of cases large canneries have proved unprofitable.

The Quaker Hill Nursery Co. has been incorporated at Newark, N. Y., by F. M. Phelps, J. M. Parkins, Jr., and Charles H. Stuart; capital \$5,000.

It is proposed by the Apple Consumers League that a National Apple Day be established in view of the success of Apple Day at the St. Louis Exposition.

The Northeast Georgia Fruit Growers' Association, recently formed, of which R. H. Smith, of Gainesville is president, represents 125,000 neach trees.

W. H. Kline, of the Cassell Nursery, Canton, Miss., has supplied 5,000 fig trees for a 50-acre fig plantation near Biloxi, owned by Mr. Gardner of Yazoo City.

F. L. Reeves, Palmyra, has been elected president, and C. E. Clark, Newark, secretary of the Wayne County (New York) Fruit Growers' Association.

Fruit growers of Orlando, Fla., have requested the State Legislature to pass a law for the control of the scale and white fly, which threaten great injury to citrus fruits.

The Connecticut Pomological Society has elected J. C. Eddy of Simsbury president, J. H. Putnam vice-president, H. C. C. Miles of Milford secretary, Orrin Gilbert treasurer.

The Wisconsin state society at Madison, elected Dr. T. E. Loope of Eureka president, G. J. Kellogg vice-president, Frederic Cranefield of Madison secretary, and L. G. Kellogg treasurer.

The whole weight of the advanced commercial element in fruit growing has been toward the cultivation of the soil in the orchard, says Professor F. A. Waugh, of Amherst College.

The Georgia Peach Grower's Association met at Macon, Ga., February 22d, after electing these officers: Prresident, D. M. Hughes; vice president, P. J. Berckmans; secretary, Frank W. Hazlehurst.

S. D. Tallman, Janesville, Wis., who owns large apple orchards, received a letter from Augusta Weineke, Chicago, asking forgiveness for having stolen a few apples from his place several years ago. Tallman wired absolution.

San Jose, Cal., growers are discussing the possibility of growing the Cheyote vine in California. This vine grows in Mexico and South America, and bears fruit said to be similar, yet superior to, the summer squash.

From all parts of the country come reports of damage by rabbits to trees in nursery and orchard. Fred Wellhouse, the Kansas apple king, says that nearly 1,200 rabbits were captured in the Ozark orchards last winter.

S. N. Bucher, proprietor of the Holt County, Mo., Nurseries, who owns a fine orchard of 4,000 champion peaches, saved his crop by the California method of smudging during the severe cold, but lost the crop in another cold snap.

"I know of no succession of varieties of apples, following the season of the Baldwin, that will give better returns in Ohio than Rome Beauty. Stark, York Imperial and, I think I am safe in adding Stayman," says F. H. Ballou, of the Ohio Experiment Station.

Robert Lamson and James Rooke of Killarney, Manitoba, have purchased the fruit farm of W. H. Covert, near Grand Forks, B. C., for \$11,000. The market for fruit in British Columbia is practically unlimited. Prices are high and with remain so for years.

Secretary L. A. Goodman, of the Missouri Horticultural Society, reports that 300 reports from fruit growers of Missouri indicate that the peach crop was killed by the severe cold of February 12th and 13th, the temperature ranging at from 18 to 32 degrees below zero.

Frank W. Hazlehurst, who is largely interested in the peach growing industry of Georgia, and who has been a close observer of the effects of the cold weather upon the peach trees, believes that the low temperature has destroyed many insects, especially the curculio.

Farmers near Leslie, Mich., have been experimenting with the transplanting of wild whortleberries in their worthless pieces of marsh land, and for the past season or two have been successful in securing crops of berries that paid them at the rate of from \$50 to \$100 per acre.

"Scions from apple orchards at Hood River, Oregon, are in demand by nurserymen in the East at \$2 a thousand," says the Homestead. Salem, Ore. "An orchardist can prune his trees and at the same time make big wages selling the cuttings. It pays to have the best and a reputation to go with it."



H S TAVLOR

PRESIDENT AND TREASURER H. S. TAYLOR & Co., NURSERYMEN, ROCHESTER, N. Y.

Business men of Laguna, Campeche, Mexico, have formed a stock company to raise bananas for export. They have secured the lease of 2,000 hectares of land near the city of Laguna. Work has already been commenced preparing the ground and the work of transplanting the trees will be begun in a short time.

Charles T. Smith, nurseryman, Concord, Ga., says that the cold weather has benefited the fruit growers of Middle Georgia, and with continued favorable seasons he states that the crop of 1905 will bring in a handsome and substantial revenue that will offset in a large measure the deficit in the cotton crop.

Chinese apples are soft and tasteless, lack juice, flavor, keeping quality, and almost every other good point. The Chifu apples introduce! from the United States and cultivated according to American methods, are very fair, but they have a tendency to water core and do not keep as well as the same varieties at home in similar temperature.

Among the fruits listed by nurserymen one looks in vain for the huckleberry, though in

some lists it is carried under the shrub class. It is a fruit often asked for, and I am often asked where it can be obtained, says the Practical Farmer. It is strange that nurserymen do not add this to their list of fruits. There are plenty of plants in the woods of Middle and Southern states.

According to the report of the secretary of the Grand Junction, Colorado Fruit Growers' Association the association handled over 1,200 cars of fruit this season, and the sales amounted to about \$540,000. A dividend of 30 per cent. on the stock was declared by the association. Independent growers and associations of the county shipped over 500 cars of fruit valued at about \$300,000.

Prof. Taylor of the United States department of agriculture, says the export trade in American apples is one of the encouraging features of commercial pomology. Notwithstanding the vicissitudes, both domestic and foreign, to which it has been subjected to from time to time, with consequent sharp fluctuations from year to year, its growth, when considered by five or ten-year periods, has been fairly remunerative on the average.

To grow a tree is much like the development of a business, and its financial success depends very much on the same kind of treatment, says Orlando Harrison, Berlin, Md. To begin with the article upon which the business is based must be good. The class of customers should be the best produced, and the soil in a fine condition to receive it. The care of business must be thorough and careful, so must the care and cultivation of a tree.

Orchardists in Tasmania are subject to a fine of from \$2.50 to \$5, with costs, if they fail to bandage their trees to keep down the codling moth, or if they fail to gather and destroy any infested fruit. Wormy apples sent to market are liable to confiscation and destruction, and the shipper can be prosecuted. In New South Wales all infested fruit coming from other colonies may be seized or destroyed, or returned to the shipper at his own expense.

Regarding freezes in Florida, Professor B. T. Galloway states that the records show that in February, 1835, and in January, 1886, freezing weather caused great damage to the tropical and sub-tropical vegetation of the state. In 1894-95 two great blizzards struck Florida, one in December of the former year and the other in February the year following, with disastrous effects. At that time the thermometer went down to 14 degrees above zero at Jacksonville, and ranged from 16 to 19 throughout the orange

About 1870 a factory for canning blueberries was located in Maine, and as it prospered it was followed by others. In 1885 and again in 1899 similar factories and canning companies were established, until today blueberry raising and canning is an important industry in that state. To supply the increasing demand, blueberry bush areas have been constantly enlarged, until now "blueberry barrens" cover some 2,600 acres in Hancock and Washington counties. A century ago these "blueberry barrens" were, for the most part, covered by a dense forest, chiefly of white pine and spruce.

It is sugested that a standard for the grading of nursery stock be discussed by the American Association of Nurserymen. This is an old subject, but an important one.

AMERICAN FRUITS.

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Correspondence from all points and articles of to growers and dealers in fruits of all kinds are

ROCHESTER, N. Y., APRIL, 1905.

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President, George F. Mead, Boston; secretary, A. Warren

President, George F. Meau, Doston, account, to the tech, Boston, Mass.

Northwest Fruit Growers Association—President E. L. Smith, Hood River, Ore.; secretary, M. Hoffman,

denti E. L. Smith, Hood Aiver, Classification of Carande, Orc.

Mississippi Valley Apple Grewers AssociaPresident, C. H. Williamson, Quincy, Ill.; secretary, James ndly, Quincy, Ill.

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Fruit Growers Association of Untario-Fresident, A. McNeill, Ottawa, Canada; secretary, P. W. Hodgetts, Toronto.

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D. Missouri Valley Horticultural Association President. George W. Holsinger, Argentine, Kan.; secretary, H.

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hry, A. E. Dewar, Charlottetown.

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president, A. L. Brooke; secretary, Thomas B. Meehan, Dreshertown, Pa.; treasurer, Peter Youngers. Meets annually in June.
Nurserymen's Mutual Protective Association—President, N. H. Albaugh, Phoneton, O.; secretary, George C. Seager, Rochester, N. Y. Meets annually in June.
American Retail Nurserymen's Protective Association—President, Charles J. Brown, Rochester, N. Y.; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.
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Western Wholesale Nurserymen's Association of Nur

dent, W. C. Barry, Rochester, N. Y.; secretary-treasurer, William Pitkin, Rochester, N. Y. Meets annually in January.

Western Wholesale Nurserymen's Association—President, Peter Younger, Geneva, Neb.; secretary, E. J. Holman, Leavenworth, Kan. Meets in July and December at

iman, Leavenworth, January Association—President, J. C. Southern Nurserymen's Association—President, J. C. Herbert S. Chase, Huntsville, Ala.; vice-president, J. C. Lle, Winchester, Tenn.; secretary, Charles T. Smith, Concord.

Meets annually.

Southwestern Nurserymen's Association—
ssident, J. W. Preston, Kingfisher, Okl. Terr.; secretary, J. A.
ylor, Wynnewood, Ind. Terr.

Texas Nurserymen's Association - President, E. M. Kirkpatrick, McKinney, Tex.; secretary. John S. Kerr.

erman, Tex.

Pacific Coast Association of Nurserymen—
esident, J. B. Pilkington, Portland, Ore.; secretary-treasurer, C.
Tonneson, Tacoma, Wash. Meets annually in June.
Pennsylvania Nurserymen's Association—
esident, W. H. Moon, Morrisville, Pa.; secretary, Earl Peters,
t. Holly Springs, Pa. Next annual meeting at Harrisburg, in
nuary.

January.

National Association of Retail Nurserymen-President, William Pitkin, Rochester, N. Y.; secretary,
John B. Kiley, Rochester, N. Y.

AS TO ORCHARD WASTE.

If the fruit grower were so situated as to be able to put into practice all the excellent advice that is given in the horticultural press of the country, as to the management of his orchards and berry fields, harvesting, packing, shipping and marketing, it would seem that nothing but the largest volume of success would follow his efforts. But not all growers are thus situated. The progressive grower, however, eagerly receives such suggestions and applies those that time and means permit him to apply.

A survey of the entire fruit field leads one to wonder how soon will come the time when the fruit-growing business will be so systematized that the waste products will be turned to profit. Problems of sufficient labor at harvest time, adequate transportation facilities and suitable packages are being discussed, and now and then attention is called to the necessity for preventing the great waste due to the lack of these facil-We are told that in many cases large ities. canning factories have not proved profit-This has led to the suggestion that small canning factories more generally distributed and with less capital tied up in them during the closed season would be profitable. The professional grower real-izes that unless his rapidly-yielding trees are in close proximity to a cannery, a considerable portion of the fruit too ripe for long transportation, must be sacrificed. Thus all his picking and shipping arrangements are timed with a view to eliminating this factor of loss to the greatest practicable extent. Yet even the greatest degree of systematizing fails to prevent great waste, and the problem remains one of the most difficult to be solved.

In the last issue of AMERICAN FRUITS some of the details of a plan for utilizing orchard waste, suggested by the late Professor Carlisle, were given. This article attracted much attention. In another column we publish one of the letters received, asking for further information, also a statement by the government official in charge of investigations along this line.

Modern producing business in other than fruit lines is reducing each year the amount of loss in waste products. What were once regarded as valueless by-products are yielding appreciable revenues, and in some instances these are proportionately larger than the original source. When the fruit grower has arrived at some such means there will be greater inducement for him to apply the careful cultural methods that are continually being suggested; for then he will know that every added care that is bestowed will return him direct revenue.

AN EXPERT ON APPLES.

We direct special attention to the suggestions in another column of this issue, by W. N. White, one of the most extensive exporters of apples in this country. His suggestions are born of actual experience in the marketing of the best of American fruit in foreign countries. He has had occasion to observe the results of the best efforts of American growers to place their products where they will bring the highest prices attainable. In the very nature of things he has been able to note what has been considered the best packing of fruit, for that fruit has been destined for a long voyage.

Having viewed the efforts of American

growers to supply the European demand in an acceptable manner, he reviews his experience and frankly tells the American grower and shipper wherein the latter is lacking in successful methods. Surely this is valuable advice; it is the advice of an expert. One who has long handled fruit exportations is, of all persons, the one to advise the grower as to what is demanded.

Commenting upon commercial varieties of apples, Mr. White says: "Maiden Blush" is excellent. Duchess, if picked successionally, that is, three times each tree, is also good, but a little soft. It ripens unevenly, hence the need of several pickings. It needs careful packing. Fall Pippin, if well grown; McIntosh, and Early Williams do well in the market. Greening is the most valuable New York apple today. Vermont Greenings now sell at \$3 to \$3.50 a barrel. This is a standard variety. win, another standard, seems to be deteriorating in color, size and quality. Spitzenburg and Northern Spy sell as well in America as in England. No sweets should

be planted for export.
"Smith's Cider is a bad name; the word cider is a detriment. Any apple is a cider apple. Packages of this sort, if labeled Smith's Favorite, would and do sell far better. Rome Beauty is an excellent sort. Ben Davis, not to be praised. Winesap is fine. Golden and Roxbury Russets are the best of their class. The Westchester Russet is not desirable, neither is the English Russet. Twenty Ounce and Twenty Ounce Improved won't carry. Wealthy is good.

APPLES OF A CENTURY.

A catalogue of the known varieties of apples referred to in American publications from 1804 to 1904, compiled by W. H. Ragan, expert in pomological nomencla-ture, has been issued by the Bureau of Plant Industry of the United States Department of Agriculture. In the preface Col. G. B. Brackett, pomologist of the department, refers to the fact that the pomologists and fruit growers of this country have long felt the want of a comprehensive publication on the nomenclature of cultivated fruits. For fifty years the American Po-mological Society has diligently and intelligently labored for a correct and uniform nomenclature of fruits, but it has been hampered by a lack of means and facilities. A dozen years ago the veteran pomologist, T. T. Lyon, South Haven, Mich., was appointed a special agent to do this work. At his death the work was continued by Mr. Ragan, Greencastle, Ind., who has a na-tional reputation in fruit nomenclature. It is the present intention to follow this list of varieties of apples with similar catalogues of other cultivated fruits. It is indeed a laudable work, and it is to be hoped that it will be carried forward as planned.

To nurserymen who should desire correct names for their varieties, and especially to originators who would avoid the serious mistake of duplicating names, this list will be of great value. In the nomenclature of this list the revised rules of the American Pomological Society have been followed. AMERICAN FRUITS has suggested that these rules, which do not occupy great space, should be published in the printed proceedings of every national, district and state horticultural society, so that they may be readily referred to by every grower of fruits and every nurseryman, to the end that the multiplicity of names and the duplication that has thrown the fruit nomenclature into

confusion may not be increased.

A glance at the long list of apples presented in this first approximately complete catalogue of varieties of the apple empha-sizes the desirability of considering the proposition often made of late that it would be better to seek to improve radically some of the most promising varieties we now have, than to endeavor to produce a new variety. One of the first to advocate this change was Prof. L. H. Bailey, years ago. And at the recent meeting of the New York State Fruit Growers' Associaion, Alexander McNeill, of Toronto, called attention to the fact that Canadian pomolgists are working for a reduction of the ist of apples and pears to ten or twelve varieties each; that prizes at fairs and other exhibitions are being offered only for such limited number. That is about the umber of really good market apples in New York state now. Let us seek to improve them, concentrating efforts to the end that large quantities of choice fruit of comparatively few varieties may be prouced, the standard raised and the prices made in proportion to the labor and intelligence expended in the production. Choice fruit is always in demand at the highest price.

A REMARKABLE STATEMENT.

At the recent meeting of the Western New York Horticultural Society, an association of practical fruit growers, it was suggested that growers of fruit should associate themselves in a movement to employ salesmen in the large city markets to represent them in the sale of choice fruits. Rochester apple dealer promptly remarked that there was not enough first-class fruit packed to make it a standard commodity.

This statement, remarkable as it seems, went undisputed; its truth was not denied. Surely this should be an eye-opener to the fruit growers of the Empire state. With thousands upon thousands of barrels of apples in storage in New York and other states, it would seem that it should not be necessary to seek a market across the water for the best prices for choice fruit, and receive a net return much less than that which should follow intelligent marketing in this country. Perhaps, after all, the matter will adjust itself in time, through the enterprise of individual growers and shippers who establish and hold strictly to high-grade methods of sorting, packing and shipping. Those who have adopted these methods are reaping their just rewards; others must learn by their experience.

CODLING MOTH PARASITE.

California, generally a little in advance of other states in the application of new fruit methods, has received a colony of phialtes carbonarius, an ichneumon fly which is declared to be a parasite of the codling moth, so destructive in apple orchards throughout the country.

George Compere recently brought to this country from Spain a colony of these parasites. It is said that in Spain the percentage of loss by reason of the codling moth

does not exceed 5 per cent.
But several years' time will be required for the insect to increase sufficiently to produce marked commercial effect, and in the meantime it behooves the fruit growers everywhere to spray persistently.

W. N. Yost, Meridian, Wash., says:

"Taking hold of an orchard completely covered with codling moth, we have in three years got to this point: Jonathan, 3-10 of I per cent. wormy this year; Roman Beauty, 11/4 per cent wormy; Grimes Golden, 2 per cent; Arkansas Black, 3 per cent. With less worms to start with this year, we can get closer still.

"But can we completely eradicate the Did you ever try? Did any experiment station or entomologist ever try? three to five-year test is what we need. Every grower of an apple tree should do

A BUSINESS CONVENTION.

We are especially gratified that marked interest has been taken in the programme for the annual convention of the American Association of Nurserymen. The editor of AMERICAN FRUITS has for years argued that the lack of an adequate programme did not give the members of the Associa-tion sufficient interest in the proceedings and that this was a direct cause of the comparatively small attendance at the conventions. It was argued by some that the members wanted to have a good time, renew acquaintances and transact private business matters. All this is well, but there should be time enough at the annual gatherings to transact Association business and to get out of the organization the benefits which membership therein implies. The nurserymen who travel long distances to attend the conventions have the right to expect that they will be well repaid for their time and money expenditure.

The programme committee of the American Association of Nurserymen is entitled to much credit for the excellent schedule it has presented. The Association is particularly fortunate in securing addresses by Dr. George T. Moore on "Soil Inoculation," and George S. Hedgcock on "Crown Gall and Root Knot." These men are government experts and their remarks will be of direct value to the nurserymen. . The Association is assured of able direction of the proceedings through the clear-headed, active management of President Kirk-

From out of the West there came to our desk last month samples of the big red apples of which much has been heard. They certainly were fine specimens: Senator, De-licious, and Black Ben Davis. They came from Stark Brothers' Nurseries and Orchards Company, Louisiana, Mo., and fully bore out the claims made for them in the elaborate Book of Fruits, recently issued by this company. The Delicious is a remarkably fine apple for eating out of hand oblong conical, yellow, red, striped, and of excellent quality. The Senator, known to some as the Oliver, is also of fine quality, round oblate, dark red, spotted; flesh firm, rich and juicy. It would seem that the demand for fruit as choice as these specimens would always exceed the supply, at good prices.

If J. H. Hale's red label upon every package of peaches sent out from his immense orchards is an important feature in the success of this noted peach grower, why do not fruit growers generally label their packages, both outside and inside, after the manner of successful men in other lines of business?

AMERICAN ASSOCIATION OF NURSERYMEN.

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risville, Pa.

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Programme—Harlan P. Kelsey, Boston; H. B. Chase, Huntse, Ala.; John S. Kerr, Sherman, Tex. Publicity—Ralph T. Olcott, Rochester, N. Y.; Orlando Harrin, Berlin, Md.; J. Horace McFarland, Harrisburg, Pa.

Exhibits-R. C. Berckmans, Augusta, Ga.; J. C. Hale, Win-ester, Teun.; M. B. Fox, Rochester, N. Y.

To Edit Report - J. Horace McFarland, C. L. Watrous, orge C. Seager. To meet Western freight classification committee at Manitou, Colo.—Peter Youngers, Geneva, Neb.; E. Albertson, Bridg-port, Ind.

Colo.—Peter Youngers, Geneva, Neb.; E. Albertson, Bridgport, Ind.

To meet Eastern freight classification committee in New York City—William H. Moon, Morrisville, Pa.; James McHutchison, New York; Howard Davis, Baltimore, Md.

To meet Southern freight classification committee—H. B. Chane, Huntsville, Ala.; R. C. Berckmans, Augusta, Ga.

Annual Convention—West Baden Springs, Ind., June 14, 1905. STATE VICE-PRESIDENTS—Alabama, John Fraser, Huntsville; Arkansas, George W. Scruggs; Colorado, George J. Spear, Greely; California, Charles Howard, Riverside: Connecticut, Edwin Hoyt, California, Charles, Spanding, Spaulding; Indiana, W. C. Reed, Vincennes; Iowa, Samuel Lorton, Davenport; Kansas, E. P. Bernardin, Parsons; Kentucky, F. N., Downer, Bowling Green; Indian Territory, J. A. Taylor, Wynnewood; Maryland, Charles M. Peters, Snow Hill; Massachusetts, Harlan P., Kelsey, Boston; Michigan, Charles A. Ilgenfritu, Monroe; Minnewota, E. A. Smith, Mankato; Missouri, W. P. Stark, Louisiana; Nebraska, George Marahall, Arlington; New Hampshire, John C. Chae, Derry; New Jersey, Hiram T. Jones, Eliabeth; New York, Theodore J. Smith, Geneva; Ohio, S. R. Fergus, Ohn M. Chonald, Salem; Oklahoma, J. A. Lopeman, Enid; Pennsylvania, Earl Peters, Mt. Holly Spring; Tennessee, C. O. Fowler, Clinton; Texas, John F. Saeed, Tyler; Utah, Jowaton, Salt Lake Cit; Virginia, W. T. Hood, Richmond; Wisconsin, T. J. Ferguson, Wauwatosa; South Dakota, George H. Whiting, Yankton.

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treasurer, Charles Roth, New Orleans.

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Padgett; St. Louis, F.-W. Brockman; St. Paul, R. A. Durkee.

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Tilden, St. Paul.

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min Newhall, Chicago.

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APPLE GROWERS' CONGRESS.

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EASTERN GROWERS AND DEALERS

EXPERT PEACH GROWING.

Concise Statement of the Largest Peach Grower in the World-As to Fertilizers Size of Tree Planted-Cutting Back a Most Important Feature-Varieties to Plant.

E. F. STEPHENS, NEBRASKA.

In the conference on growing peaches J. H. Hale of Connecticut, at the annual meeting of the Kansas Horticultural Society, told of fertilizing his 200 acres of peach orchards in Connecticut. They purchase all the hardwood ashes they can find. He has a ten-year contract with one factory for its ashes at 30c per barrel, which he regards as being worth 25c per bushel to the orchard. They sometimes purchase nitrate of soda, but do not care for mixed fertilizer. He advises the broadcasting of fertilizers; covering the whole ground and inducing the trees to spread their roots widely. Fertilizer applied close under the branches tends to lessen the spread of the root system.

In the large commercial orchards of the South, the majority of planters use what is

known as a June bud, i. e., a small tree 18 to 24 inches in These can be purchased height. and planted with less expense larger trees. Mr. Hale, however, prefers to use a larger and stronger tree, five to six feet in height. These are cut back to within 24 inches of the ground and allowed to grow a bushy top, the intent being to grow the fruit where it can be readily reached from the ground.

CUTTING BACK.

At the beginning of the second season if the trees have made a growth of three or four feet, the stronger branches are shortened to 20 or 30 inches and some of the weaker shoots are thinned out. The tree is allowed to gain

in height slowly. If it reaches 10 or 12 feet in height, it is cut back and a new top grown. Mr. Hale has one peach orchard in which the trees are planted 11 feet apart. This orchard, however, is kept carefully trimmed. He has 150,000 trees in one orchard planted 13 feet apart. If the trees were not closely trimmed, they would perhaps require 16 to 20 feet of room. This fall he planted between 8,000 and 10,000 trees in New England, cutting the trees back and making a mound against each tree as planted.

Kansas has not had a good peach crop in the eastern part of the state for two Orchardists hope for better results the coming year. Their particular difficulty is that they have periods of mild weather in winter during which the buds expand, only to be killed by succeeding cold waves. The northern and northwestern part of the state has suffered less from this and has therefore secured better results.

VARIETIES TO PLANT.

Mr. Hale recommends planting the North China type of peaches in preference to the Persian strains. Of the North China type we have Greensboro, Waddell, Hales Early,

Early Rivers, Carmen, Hiley, Belle of Georgia, Crosby, and the Hills Chili.

He urges the supreme importance of thinning peaches which enables the remaining fruit to grow to larger size and of bet-ter quality. This choice product commands a price so much higher that it pays abundantly for the thinning process.

Mr. Hale has shipped 100,000 bushels of peaches from one Georgia orchard. He plants mostly white-fleshed varieties, as they bring better prices. Of the first 100,000 peach trees that he planted, 60,000 were Elberta. In the next 200,000 not one Elberta was included.

The biennial election of officers of the Kansas Society resulted in the choice of Frank Holsinger of Rosedale, president; William H. Barnes, of Topeka, secretary, and G. L. Holsinger, of Argentine, treas-

A PROGRESSIVE NEW YORK NURSERY

In 1888 the nursery firm of H. S. Taylor & Company, Rochester, N. Y., was formed by Hinman S. Taylor and his brother Fred



CALIFORNIA PRIVET-H. S. TAYLOR & CO'S NURSERIES, ROCHESTER, N. Y.

V. Taylor. A prosperous business was built up, resulting in the employment of a large number of salesmen on the road and shipment of stock to all sections.

Illustrations presented herewith show sections of the clean-cut, thrifty nursery plant of this well-known firm, at Brighton, N. Y., comprising upwards of one hun-As both growers and dealers dred acres. in a general line of nursery stock, the company ranks among the most active and progressive in the great Western New York nursery center. The officers are: President, H. S. Taylor; vice-president, J. F. Norris; secretary, F. V. Taylor.

Reports from Michigan indicate a large fruit crop the coming season.

C. C. Bell, Booneville, Mo., an extensive apple grower and shipper, who recently visited South Texas, says that the prospect for a large crop of apples throughout the country is good.

Senator Henry Dunlap, of Savoy, is president of the Illinois Apple Orchard Company, with Len Small, of Kankakee, secretary-treasurer. The company owns extensive orchards in southern Illinois.

NEW YORK APPLE.

Experts Say That It Excels the Apple of Any Other State-The Product Largely Due to the Experiment Stations - High Praise for the Spitzenberg.

"I have seen apples in every state, from California to Maine," says Professor W. G. Johnson, of New York city, "but the specimens shown at the last New York state fair surpass any that ever came under my notice. Neither Ohio, Illinois nor Kansas, all celebrated for their apples, can 'hold a candle' to New York in the excellence and beauty of their fruit.

"Some of the apples that come to the earlier markets are the Maiden Blush, Duchess, Red McIntosh, Early Williams, Fallawater and Fall Pippins. These are the popular varieties and are consumed in large quantities in this city. The Fallawater, though not known as well as some of the others, is an apple to be sought by those who appreciate a delicious variety of

this fruit.

"But what we call the New York standards are the Baldwin, Russet and

Rhode Island Greening. These apples are not so pretty as some of the others I have named, but are superior in quality. Other delicious apples are the Northern Spy, Newtown Pippin, Spitzenberg and Tompkins King.

"The West Virginia Apple Pie Ridge, as it is called, produces some great standards among them the York Imperial, an exceedingly fine fruit, and the Ben Davis, Baldwins, Greenings and Pippins are grown in great quantities in the extreme West and Northwest. All these varie-ties come to the New York market and find ready sale."

George T. Powell, special contributor to AMERICAN FRUITS, says: "The excellent product of

New York fruit growers results largely from the work of the State Experifrom the work of the State Experi-mental station. The lessons taught there are quickly learned by the growers, and besides a marked improvement in quality, millions of dollars have been saved in the raising of this truit during the last five

years.

"The New York apple, which, to my mind, is the king of all, is the Spitzenberg. I have advised a family whose doctor prescribed apples, home-grown apples, to get a barrel of Spitzenbergs. This apple is acid, which is the digestive principle in the california. apple and which is lacking in the California

Mr. Capp, of Capp's Station, Arkansas sprayed his forty-acre orchard eight times with the dust process and got 98 per cent. of perfect apples. In the dust spray the Bordeaux mixture is formed as follows: The lime dust is mixed with powdered sulphate of copper and is blown upon the trees while the dew is on, which is best, as the moisture of the dew forms the Bordeaux mixture, or the moisture of the dews of the following days accomplishes the same end.

ALONG THE PACIFIC COAST

LIQUID SUNSHINE

n a California Orange is What Brings the
Extra Prices, Not the Seedless Nature
Alone — Frank Opinion Regarding
Seedless Apple by Dealer of
Forty Years' Experience.

W. N. WHITE, NEW YORK.

We notice that, in an article in AMERICAN FRUITS from London, England, mention is made concerning the coreless apple, which is altogether a misnomer; the core is there, with no seed. In America this apple has been called "the seedless apple." As regards the price realized in Covent Garden, that price was given by a well-known fruiterer, knowing it was for a charity, so that he could display these apples in the center of his show-window, and so bought by him more by way of an advertisement than anything else—and quite right; the money was handed over to charity. We have the names of the buyers and sellers here.

Our opinion has been asked about this apple, and specimens have been submitted to us. We consider it of no commercial value; we pronounced it a specimen of the York Imperial without seed, but the core was there, all the same. Another well-known fruitman examined it at the same time, and agreed with us. There are hundreds of kinds of apples grown in this country of very little commercial value, only fit for cider and evaporation; there are hundreds of apples grown in every country that are not of much value. The writer has dealt in apples from almost every country in the world except Asia, and has been connected with apple selling for forty years. I say the seedless apple is of no commercial value, and I do not think it can be too widely known, as the way in which this apple has been boomed trying to sell nursery stock, the sooner would-be purchasers know what some apple dealers think about the matter the better it will be for them.

One man writes thus: "If the seedless orange, why not the seedless apple?" It is not the question of the seed in the orange, it is the question of the quality of the orange. I have seen seedless oranges sold

for less than freight, and I have seen seedless oranges sold at \$8.00 a box; same thing applies to apples. Seedless oranges are grown in Spain, Florida, Porto Rico and California, but it is only the California orange filled with liquid sunshine that brings the extra prices, and we think, before any papers take up the question of booming nursery stock which may concern growers for generations, that they will do well to submit the fruit to the judgment of growers and dealers as to the ultimate results.

PACIFIC COAST NOTES.

The spring season on the Pacific Coast is a month in advance of the usual time.

J. R. Robinson, nurseryman, at Wilderville, Ore., reports that he has more orders for nursery stock than he can fill.

On March 10th almonds and peach trees were in bloom in Oregon. A heavy crop of fruit generally is predicted for the State.

The first perfect fruit grown on the original navel orange tree since it was transplanted in the Glenwood court at Riverside, Cal., two years ago was shipped to President Roosevelt March 10th. The tree was planted by the President at the time of his visit to Riverside in May, 1903.

The Ozark Fruit Growers' Association will open an office in the berry district of Arkansas early in the season, will send a man to each of the large city markets, will receive daily market reports by wire as well as reports from the berry fields, as to the number of cars to go out daily, also the number of crates to go by ex-

George B. Katzenstein, manager of the Earl Fruit Company, with headquarters in Sacramento, has just returned from a personal inspection of orchards and vineyards in the northern part of the State, and he gives it as his opinion that this will be a season of unprecedented prosperity, the favorable outlook being helped by the present spell of wet weather.

The C. M. Wooster Company at San Francisco has sold 2,000 acres of the Packer ranch, on the west bank of the Sacramento River, to a colony of German Baptist farmers for \$125,000, for fruit growing and dairying; also 7,000 acres in Monterey County for S. O. Spring of Peoria, III., to Los Angeles people for \$200,000. An irrigating canal supplies the land with water.

CALIFORNIA DISTRIBUTORS.

Practical Results Accomplished By This Association of Growers and Shippers of Fresh Deciduous Fruits—Expeditious and Regular Transportation Service Secured by Co-Operation.

The California Fruit Distributors a clearing house or exchange through which the bulk of the Eastern deciduous fruit shipments pass, to the end that there may be an even distribution to all markets of the different varieties, and with the ultimate object of working up, exploiting and developing new markets. This company is a successor to different unions, associations and organizations that have had in the past for their object the forwarding and distribution of this product.

The company has been organized for three years, says the Sacramento Record-Union, and all who are acquainted with its object and its work are well satisfied with its effectiveness, desires and accomplishments.

plishments.

The company is composed of growers, shippers and associations engaged in the fresh deciduous fruit business in the several fruit-growing districts in the state, and was organized in May, 1902, and immediately assumed all the duties of the organization known as the California Fruit Growers' and Shippers' Association, together with enlarged powers, duties and responsibilities. The membership of the organization is in no way qualified by the quantity of shipments made, and the shipper of one carload is given as much consideration as the shipper of 100 cars.

The saving in telegraphing and mailing expense alone pays for the cost of the organization, exclusive of advertising and special expenses of that nature. One of the chief aims and greatest endeavors of this company is to secure by united action, expeditious and regular transportation service from the transportation companies, and to secure a most efficient, up-to-date and intelligent handling of their product in all respects.

Griffing Brothers Co., nurserymen, have recently set out thirty acres of grape fruit in Dade County, Florida.



GENERAL VIEW OF SECTION OF FRUIT TREES. H. S. TAYLOR & COMPANY'S NURSERIES, ROCHESTER, N. Y.

OUR READERS' VIEWS

J. G. HARRISON & SONS' EXPERIENCE

EDITOR AMERICAN FRUITS:

The leguminous plants, such as clover and cow-peas, are the two most important covers we can use, as they put the ground in good condition for nursery stock

The cow-peas will add more to the soil in one growth than the crimson clover, but the clover can be sown as late as the last of August, or in September, when it is im-possible to use the cow-peas; therefore, each of these are very valuable crops for covers. We usually sow as much as fifty bushels of the clover each fall, and then it is about two feet apart in the nursery.

We usually get a stand with the clover, especially if the ground is a little damp, when the seeds are planted, and this covers the ground during the winter, keeping it in good condition for early spring, and makes an abundance of roots, with short top, and it is an excellent carpet where you want to spread stable manure or fertilizers, as it keeps the land from leaching and the ground does not lose its strength.

We have noticed again this season that, where we planted the crimson clover last fall, on a farm of about 300 acres, which is now planted in apple trees surrounded by woods which is inhabited with a great number of rabbits, that the rabbits did not eat the trees, but fed on clover, while in a small farm about one mile away, which is not covered with clover, the rabbits came from the woods and ate the trees at our

expense, and damaged several thousand.
Berlin, Md. J. G. Harrison & Sons.

FLORIDA CITRUS BELT.

EDITOR AMERICAN FRUITS:

So far as citrus fruits are concerned, the recent cold has again demonstrated the fact that Dade county, Florida, is the only safe place in the state to plant this class of fruits. While the trees throughout the old orange belt did not suffer badly, the fruit on the whole was ruined. This brought thousands of dollars of loss to the fruit grower, and had it not been for the dormant condition of the trees, the whole business in the old orange belt would have been wiped out again.

There is every indication that there will be a heavy crop of both citrus and tropical fruits in Dade county this year. Mangoes, Avacado pears, and all purely tropical fruit trees are holding an uncommonly heavy bloom, and the same is also true of the orange, grape fruit, lemon and lime trees.

If you could be here during the fair, I

am sure that it would be an "eye-opener." E. V. BLACKMAN.

Miami, Fla:

MR. FERGUSON CONFIDENT.

EDITOR AMERICAN FRUITS:

I have been engaged resisting exorbitant freight rates for more than five years. I filed the first complaint against the Pere Marquette Railroad before the Interstate Commerce Commission. I have pending in the Federal Courts two cases against the contracting roads. In this fight I represent the Western Fruit Jobbers' Association, of which I am president. I also represent the National Retail Grocers' Association, which is composed of more than 3,000 local associations scattered throughout United States. I also represent several state organizations, as well as numerous local organizations. Each day brings new assistance from some quarter of the globe.

Let your paper do its part.

This is a great fight for the people's rights. The fruit industry of this country

today is not only bearing double its rightful share of the carrying charges, while packing-house products, which should carry a higher portion, are being transported for less than one-half the charges demanded for the transportation of fruit; but, in addition to the freight rate, fruits are com-pelled to stand an exorbitant refrigeration charge, which is not assessed against packing-house shipments.

Have just returned from St. Paul, where I gave testimony before the state senate committee, and have asked them to memorialize Congress on the subject.

Duluth, Minn.

E. M. Ferguson.

Duluth, Minn.

NEW YORK SOMERSET APPLE.

EDITOR AMERICAN FRUITS:

I am an amateur fruit grower and I wish to obtain the New York Somerset apple grafts, which I wish you could help me The apple is small, therefore not a commercial apple; but, as at dessert, one of the best. Downing describes this fruit: "Fruit below medium size, roundish, conical, much narrower toward calyx; skin whitish-yellow some netting, and patches of russet; a few brown dots; flesh quite white; very tender, juicy and highly aromatic; very good to best; season October." Let me know who has got the apple.
P. D. KEISER, M. D.

Lehighton, Carbon county, Pennsylvania.

ONE OF MANY.

"We appreciate your journal and what it is doing for the cause of Horticulture and I shall take pleasure in calling the attention of our officers and members to its merits."

C. E. BASSETT, Secretary Michigan State Horticultural

SOUTH DAKOTA Trees and Shrubs

RE daily becoming more famous the world over. Why? Because they are Rugged, Hardy, Vigorous, Fruitful, and filled with Plant Life, caused by our extremes of heat and cold together with sudden changes of temperature and humidity. Our extremely fertile and friable soil puts stuff into them cheaply and effectually, and makes it possible for them to thrive over a wide range of conditions. This is especially true of our natives which have had these good qualities bred into them for ages

I have one of the best nursery soils on earth, intelligent and efficient labor, excellent shipping, storing and handling facilities, and there is no place like WHITING'S to get this stock. It will pay you to get my free catalogue. It contains honest, impartial descriptions and illustrations, and prices that cannot be met by any traveling agents. I sell direct.

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Apple, Pear, Cherry, Plum and Peach in all grades. Shade and Ornamental Trees, Shrubs and Roses

CALIFORNIA PRIVET, I and 2 yr. SMOCK PEACH PITS

SEND LIST FOR PRICES

Franklin Davis Nursery Co.

Baltimore and Paca Streets, BALTIMORE, MD.

DOMINION OF CANADA

CANADIAN IMPROVEMENTS.

Deputation of Niagara District Growers Requests Series of Experiments for Combatting Black Rot of Grapes and San Jose Scale-Extensive Shipping Experiments to be Conducted Next Fall.

A deputation from the Niagara District Fruit Growers' Association of Ontario, Canada, waited upon Hon. Mr. Montieth, Minister of Agriculture, and asked that the department conduct a series of experiments throughout the Niagara district, in order to find out the best method of combating the black rot of grapes and the San Jose scale, and for continued assistance in supplying spraying material to fight the scale and other pests. Mr. Monteith promised consideration. Among those on the deputation were: Dr. Jessop, M. P. P. for Lincoln; Major Hiscott, Niagara; W. H. Bunting, St. Catherines; M. Pettit, Winona; W. McCalla, St. Catharines; C. H. Honsberger, Grimsby, and A. H. Pettit, Grimsby.

As a result of a conference between the transportation committee of the Fruit Growers' Association of Ontario and James Hardwell, chief traffic officer of the Railway Commission, it has been decided to conduct a series of extensive experiments next fall in the shipment of tender fruits and apples to the seaboard and Winnipeg. There are five styles of cars now in use, and there is some disagreement as to which is the best. It is hoped the result of the experiments will enable the fruit growers to definitely recommend to the railways the style of car, and one system, for the purpose mentioned.

CANADIAN APPLES TO NORWAY.

C. E. Sontum, commercial agent of the Dominion of Canada at Christiana, Norway, reports:

During the past month I have had the pleasure of placing with a Hamilton (Ontario) firm orders for two carloads of XXX Red Baldwin apples, also for a sample shipment of such apples packed in boxes, and of choice evaporated apples. I sold a carload for this same firm last year, which gave entire satisfaction, and as the importers have thus got confidence in the goods, I hope to establish a regular demand for Canadian XXX Baldwins and choice evaporated apples, if the Canadian exporters continue to send strictly first-class goods. On account of the high duty only the better class can afford to buy imported apples, and at the high prices which they then have to pay, they demand selected fruit. There is plenty of common quality apples grown right here, and as there is this year an abundance of them, the price is very low. Nevertheless, I obtained the same price for the Canadian apples this year as last.

AMERICAN FRUITS sets the pace. Others are following its lead.

ORANGES FOR CANADA.

General Izabel, governor of Sonora, Mexico, in a report on the orange question, says in part:

"The question is reduced to a tariff war against Mexican oranges which mature at the same time as the California and Florida orange, for which reason those producers wishing to avoid the competition of the Sonora fruit obtained from the United States government an import duty so high that it is impossible to enter the American markets.

The question then has two sides for the Sonora producer: To seek other markets or find in his industry a time of harvest, different to the present, as Jalisco has, which does not compete with the California market at all, and which realizes good prices, as there are no other oranges in the market when the Jalisco crop is gathered.

"So far as the first mentioned side is concerned, Sonora producers are shipping fruit to Canada, and there are good reasons for believing that the Canadian market will be conquered by Mexico.

The production of the State of Sonora in 1897 was estimated at 30,000,000 oranges valued at \$300,000."

THE OAKLAND NURSERIES

Have a surplus of 3 and 4 feet PEACH TREES in good varieties. Long on H. P. and Crimson Rambler Roses, also Crimson Rambier Trees. Will quote a very low price on Roses to close them out.

C. R. BURR, Prop., Manchester, Conn.

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Dakota Red Raspberry

Perfection Currant

Send for list of BEST NEW FRUITS.

A. S. DRESHER. Lisbon, Iowa

The best that money, location and experience can produce.

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Are the best that can be grown. You can get no better, no matter what you pay. A complete line for spring delivery. Write for prices, Salesmen wanted. Nurseries at Carrollton and Jerseyville.

JOHN A. CANNEDY, CARROLLTON, ILL.



WRAGG TREES

We Pay Freight. Send for our hand-some catalogue of Trees, Shrubs, Roses, Evergreens, etc. We deal direct. No agents. Our prices are lowest. Our Mr. M. J. Wragg is an expert landscape gardener and his services are available

M. J. WRAGG NURSERY CO., 300 Good Block, Des Moines, la.

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Now is the time to consider the question of procuring your supply of Labels for the coming season. ORDER EARLY and avoid the rush and the not uncommon delays in transit.

BENJAMIN CHASE, No. 11 MILL STREET, DERRY, N. H.

California 1, 2 and 3 yr.

Privet

These are my Specialties. Let me quote you Stock No. 1

Asparagus 1 year Roots

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The Pioneer Nursery at Huntsville, having the largest acreage of any nursery in the United States. Reputation the highest for well grown trees true to name. References from Nurserymen and Orchardists everywhere. Nothing sold at retail. Prices will not be given nor orders accepted for less than 300 trees. Catalogues describing the best market varieties and explaining our terms upon application.

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HELP!

I have a surplus of 200,000 California Privet 2 and 3 yr., in all sizes, and I want you to help me to dispose of it. This Privet is well grown, well graded, strong and stocky, and I am sure it will please you. It will pay you to let me quote prices before buying.

C. A. BENNETT, Robbinsville, N. J.

CHERRY TREES 1 and 2 year leading varieties.

PEACH TREES

General list of varieties, long on Elberta and Largely Medium. 3 to 4 feet and 2 to 3 feet grades.

APPLE TREES

We have 25,000 Ben Davis and a general list of other varieties.

General line of other stock. Send us a list of your wants. Personal inspection invited. Can ship time on short notice.

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GROWERS IN THE SOUTH.

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From Bud. Standard Varieties. To nurserymen or planters, prices cannot be quoted in American Fruits. Send want list for April. Fresh dug, and April fresh price. You know what that means.

WM. M. SIMANTON, Asbury, N. J.

PECANS AND ALL KINDS OF NUT TREES.

NEW PLUM, MAYNARD,
THE MONEY-MAKER. The BEST that ever happened
SEND FOR DESCRIPTION.

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10 x 20 Inches.
75c. per 100, \$5 per 1000.
Send for descriptive circular and testimonials.
Carry them in stock for your customers. Large surplus of Nursery Stock. Send for Surplus List.

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ABSOLUTELY SAFE AND RELIABLE Ask Your Friends

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Caldwell Tanks and Towers...

for Florists and Gardeners are so built as to be shipped at the minimum freight charge. After arrival any intelligent mechanic can erect one from the plans and directions furnished.



W. E. CALDWELL CO., Louisviile, Ky.

CULTURAL TOPICS.

PRUNING FRUIT TREES-Nurserymen will all tell you of the great demand for low-headed trees, says A. M. Latham, of Blue Grove, Texas. Pruned when young, so as to have a spread or brace of branches at the head, a fruit tree will have the capacity to bear heavy crops without splitting from the weight of the fruit or from storms. Low-headed trees that have a spreading crown are the best, but in pruning by all means avoid a fork or crotch. Such trees will be sure to split when heavy crops of fruits or storms test their strength. The apple or other fruit tree is not naturally a high-growing one, like the poplar or pine, but a low spreading variety. An isolated tree of almost any kind, be it forest or fruit tree, if allowed to come up and grow at will, almost always branches near the ground. The reason is apparent. It shades the ground and maintains a lower temperature, thus retaining the moisture, the most necessary element in producing wood growth.

Pedigree Strawberry Plants—All growers should have their own personal test plots, writes John Shank, of Sterling, Ill. "I now have my old strain of Crescent seedlings that I purchased when first disseminated and came at high price.



F. V. TAYLOR, SECRETARY, H. S. Taylor & Co., Nurserymen, Rochester, N. Y.

In order to hold the original type, with its fruiting and plant-making qualities, about every four or five years I prepare a stock bed to grow new plants discard all others, I go over this plot. I examine every plant in full bearing, and I select the strongest, most vigorous Crescent type, both vines and fruit. I then stake these and chop out everything else. I have done this for thirty-five years. This is the only business method of arriving at a pedigree plant. All others are on paper only."

The Wolverine Nurseries

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Will name you low prices on all kinds of Fruits and Ornamentals, Grape Vines, etc.

Get our Prices before buying. G. E. PRATER, Jr., Prop.

PHENOMENAL AND LOGAN BERRIES

Mammoth Blackberries, Gray's Gardena Dewberries, Burbank's Crimson Winter Rhubarb. Also complete line of NURSERY STOCK.

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OLINGER'S DIBLER AND TRANSPLANTER

The only dibler ever made for resetting, transplanting, fertilizing with dry or liquid. Also used for lawn weeder, taking out small roots or worming tobacco or otherwise; also at kitchen or hearth for hot coals or other purposes. Price 50c, by express or mail.

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APPLE, CHERRY, PEACH, PLUM and Keiffer Pear Trees

Apple Seedling

CLEAN AND HEALTHY
WELL GRADED

NONE BETTER

Osage, Russian Mulberry and Soft Maple Seedling

Bechtel's Double Flowering Crab

All sizes, including small trees for planting in nursery.

SHADE TREES

ELM, SOFT MAPLE

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WEIR'S C. L. MAPLE
Grape Vines, Flowering Shrubs

APPLE GRAFTS
All Styles Made to Order

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Offer a general assortment of Fruit Tree Stocks, such as Apple, Pear, Myrobolan Plum, Mahaleb and Mazzard Cherry, Angers Quince, Small Evergreens, Forest Trees, Ornamental Shrubs, Roses, Etc. The largest stock in the country. Prices very low. Packing secured. Send for quotations before placing your orders. Catalogue free.

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Examinations made of soils, locations and surroundings of Country Homes. Information given on modern methods of soil improvement, selection, planting and care of fruit, ornamental anciorest trees. Address,

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We are large dealers in natural Peach Seed, and can make quotations on same July to January.

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ben in need consult your interests by consulting our prices. We grow many other items for the trade. J. A. GAGE, Beatrice, Neb.

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A Positive Destroyer of San Jose Scale. The OWEN SPRAYING SPAR for Power Sprayers. Other Orchard Necessities. Write for Catalogue

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One Year Cherry Trees

Let us send you our circular telling all about the best
Cherry Trees on earth. You must see a sample to be
convinced. Everyone who received any from us in 1904 pronounced our one year trees the best by far they had ever seen. We also have peach and a general line of nursery stock. Get our prices before you buy elsewhere. H. M. SIMPSON & SONS, Vincennes, Ind.

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IN ORCHARD AND FIELD.

BIG DEMAND FOR BARRELS-The introduction of improved machinery in its manufacture has made the American cooperage business the largest in the world, writes George E. Walsh, in the Scientific American. There are upward of 300,000,000 barrels and circular packages manufactured in this country annually, and the de-mand increases so that this output must be steadily broadened, in order to keep pace with the growth of the business. The largest consumption of barrels is in the cement business, which approximately demands 35,000,000 a year for the trade, while flour comes next, with a demand for 22,500,000; fence staples, bolts, nuts and nails require 18,000,000 and sugar 15,000,000. Roasted coffee, spices, crockery and fruits and vegetables use up about 5,000,000 barrels a year each.

COSTA RICA BANANA INDUSTRY-The banana industry, unknown to Costa Rica twenty-five years ago, has reached such proportions, especially within the last few years, that bananas now form the main export of the country. It is no longer an infant industry, but a giant one, as important as that of coffee, which for a long time has been the mainstay of this small but staple republic. At the close of 1904 about 50,000 acres of land were devoted to banana growing in Costa Rica, of which 90 per cent. is owned by the United Fruit Company, a corpora-



I. F. NORRIS. VICE-PRESIDENT H. S. TAYLOR & Co., NURSERY-MEN, ROCHESTER, N. Y.

tion organized under the laws of New Jersey, and controlling probably 75 per cent. of the total production. During the six months ended December 31, 1904, the exports amounted to 2,911,071 bunches.

NEW CALIFORNIA FRUIT PACKAGE—It has been decided that all shippers affiliated with the California Fruit Distributors shall discontinue the use of the present form of crate and basket for the shipment of crate fruits, and that they use a package based on the size of the present peach box, with three baskets made to fit therein side by side, the reason for the change being that the fruit can be packed more easily in the contemplated baskets and that the peach box or crate of that dimension will load more readily and easily in the cars for Eastern shipment. There will be no stoppage of air passages in the cars and circulation will be unimpeded. of the different varieties can be loaded directly into the iced cars from the wagons, without having to wait for tiers of the same variety of packages.

LUTHER PUTNAM, Nurseryman, Cambridge, Vt. "Enclosed find \$1 for three years' subscription to AMERICAN FRUITS. Your periodical is fine indeed and cannot be beaten for the money on the Continent. Thanks for sample copies. Think it will help me much, as I have more than 3,000 fruit trees to care for."

4.000.000 PEACH TREES

Tennessee Wholesale Nurseries.

JUNE BUDS A SPECIALTY. No agents traveled, but sell of two beals prices. Absol free from disease and true to name. Write for catalogue and pefore placing your order elsewhere. We guarantee our sto be true to name. Largest Peach Nursery in the world. Add J. C. HALE, Winchester, Tenn.

FINE DELAWARE-GROWN

PEACH AND PLUM TREES

We would say here (but you already know) Delaware line—no better anywhere. Assort-Prices low. Address, this lir ment of varieties.

D. S. COLLINS, Manager, THE DELAWARE NURSERIES, MILFORD, DEL.

WE OFFER IN CAR LOTS-

Apple, Peach, Pear, etc.

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Defender Sprayer

, easiest work-cowerful, auto-

Cuts from both sides of limb and does not bruise the bark. RHODES DOUBLE OUT PRUNING SHEAR not the bark. We pay Ex-press charges on all orders. Write for facular and RHODES MFG. CO. 422 West Bridge St., GRAND RAPIDS, MICH.

ARBOR

Infallible remedy for Borers, Scale and all animal life inimicable to trees, Makes trees healthy and stimulates growth. Sold on guarantee. Write for particulars. Agents Wanted.

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WEST MICHIGAN TREES

are "bred for bearing." That's why we cut all buds from the best fruited, bearing trees. It also insures stock true to name and variety. Over three million trees-913 acres. All new and standard varieties of Apple, Peach, Pear, Plum, Quinçe, etc. Also Ornamental Trees and Shruba. We sell direct at wholesale prices. Illustrated catale gue free. WEST MICHIGAN NURSERIES, Box 67, Benton Harber, Michigan

Colored FRUIT **PLATES**

For Nurserymen

Colored LABELS

For Fruit Shippers

ROCHESTER LITHOGRAPHING CO. ROCHESTER, N. Y.

FROM VARIOUS POINTS.

The Maine Pomological Society has elected Z. A, Gilbert, of Greene, president and D. H. Knowlton. Farmington, secretary.

H. B. McWilliams, Marshall, Texas, has been re-elected president, and Sam H. Dixon, Houston, Texas, secretary-treasurer of the East Texas Fruit and Truck Growers' Union.

Kleine Brothers, Gonzales, Tex., are putting out 2,000 peach trees. W. H. Boothe last year planted 9,000 peach trees in the same section. Throughout Texas peach orcharding is being extended rapidly.

A. F. Gardner, of Yazoo City, Ga., has planted 5,000 fig trees. The trees are one year old, bear the second year, at the age of five years average sixty-five pounds of fruit to the tree, and the fruit brings from four to six cents a pound; demand unlimited.

W. H. Ryus, of Carthage, Mo., and J. H. Bartles, of Dewey, I. T., have an 800-acre peach orchard near Harrison, Ark. There are 85,000 trees in the orchard; 35,000 of them are Elbertas. They expect 10,000 bushels of fruit this year.

Irapuato, Mexico, a town of 20,000 inhabitants, widely known as the "Strawberry Station," from the fact that fresh strawberries can be purchased there at the train side every day in the year for 25 cents, Mexican money, per basket.

Repeated experiments in New York State confirm the earlier estimates of the utility of the lime-sulphur wash in repression of San Jose scale. More recent work also indicates a wider scope for this spray and establishes its value as a fungicide for certain forms of disease like peach leaf curl and apple scab.

Orchards are seldom unprofitable on account of their owners having spent too much time or money in their care, says John W. Lloyd of the University of Illinois. They may be unprofitable because they have not spent enough time and money upon them. The more attention given the orchard, the more profit it usually yields.

"If I had to cut out my spraying I would follow with axes and cut out my trees," said John Downing, at a meeting of Benton Harbor, Mich., peach growers. "What can be accomplished by thorough spraying can be said in a few words, and they are these: Fine crops of fine fruit and fine prices almost every year.'

The Indian Territory Fruit and Tree Grow ers' Association has been organized with the following officers: A. P. Blackwell, president, Durant; J. S. Beck, vice-president, Ada; W. T. Whitlatch, secretary, Durant; G. W. Dobson, treasurer, Caney; Dr. L. D. Ewing, Terrell; M. H. Moore, Caddo; A. J. Looper, Ada; E. M. Gray, Durant; D. D. Bond, Silo; R. Chance, Tishomino, and J. M. White, Eufaula, executive committee; E. M. Gray, W. T. Whitlatch and W. C. Gower, transportation committee

GABRIEI HEISTER, Harrisburg, Pa .- "I am very much pleased with AMERICAN FRUITS."

GEORGE H. WHITING, Yankton, S. D .- "I enjoy reading AMERICAN FRUITS very much. You are getting to the front in fine shape."

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1 and 2 Year Cherry and 1 Year Budded Apple

IN LARGE AMOUNTS AND GOOD ASSORTMENT.

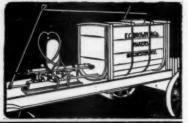
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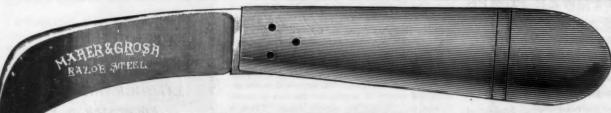
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What kind of help will you have this spring. Will you do your work the old way with many men and much expense, or employ the time-saving, labor-lessening and money-making



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Nursery Pruner No. N

Cut is exact size. Blade is hand forged and warranted.

Grafting Knife by mail, 25c. Nursery Budding Knives, 25c. Pocket Budding Knife, 35c. All EF Nursery and Florists' Propagating Knife, white handle, 50c.—You pay 75c. for a much inferior knife. uning Shears, California pattern, postpaid \$1.00. Send for 12 page SPECIAL NURSERY CATALOGUE. All Steel Pruning Si MAHER & GROSH CO., 92 A Street, TOLEDO, OHIO.

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Apple Grafts, Pear Grafts, Etc.,

Put up in the best possible manner, and in quantities to suit-WHOLE ROOT, PIECE ROOT, or ANY STYLE WANTED

Send in your list and get prices, and order early.

FOR SPRING 1905 TRADE

We have in storage a fine general assortment of fruit and ornamental trees, plants, vines, etc., making a complete stock-ready for shipment at any time wanted. Send in your want list and get prices, and place your orders early.

Remember, we have the best SPADES on the market.

Remember, EXCELSIOR is the best PACKING MATERIAL.

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For Spring of 1905

Catalpas American Elm Ash-Leaf Maple Silver Maple Weir's C.L. Maple Deutzias

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25,000 Peach Trees, leading varieties, I year from bud. 30,000 Peach Trees, June budded.

50,000 California Privet, 2 year year old strong plants. 50,000 Asparagus Plants, 1 and 2 year old.

300,000 Grape Vines, 1 and 2 years, well grafted. Mostly Concords and Moore's Early.

One Million Strawberry Plants in 50 varieties. strong Plants from new beds set Spring 1904.

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Carry a most complete line of the wants of the trade.

A fine assortment of Perennials properly grown and handled and

packed right; can ship at any time to any place.

Strong surplus of American Sweet Chestnut—all sizes from two Strong surplus of American Sweet Chestnut—all sizes from two feet up. Carolina Poplars—all sizes, extra fine blocks. Nice stock of Currants, Grapes, Rhubarb, Silver Maple, Weigelias, Spirea Van Houti, Am. Snowball, Cornus ass't., Privet, Purple Fringe, Deutzias, Syringas, Hydrangea, Yuccas and Honeysuckles.

Also Arbor Vitae, Siberian, Pyramidalis and Tom Thumb. Pines—assorted, Hemlock and Spruce. All evergreens three times transplanted and extra fine.

Please send us your lists to price.

Correspondence solicited and inspection invited.

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Can Ship Any Day

VARIETIES and SIZES of PEACH TREES

For Sale March 10th, 1905

| | | | | - | | | | | | | | | |
|------------------|------------|------------|------------|------------|------------|------------|---------------------|----------|------------|------------|------------|------------|------------|
| | 6 to 7 ft. | 5 to 6 ft. | 4 to 5 ft. | 3 to 4 ft. | 2 to 3 ft. | 1 to 2 ft. | | to 7 ft. | 5 to 6 ft. | 4 to 5 ft. | 3 to 4 ft. | 2 to 3 ft. | 1 to 2 ft. |
| Amsden June | | | 145 | 290 | 430 | 275 | Emma | | 300 | 70 | 70 | | |
| Ark. Traveler | | 10 | 77 | 250 | 200 | 95 | Engles Mammoth | | | 70 | 272 | 1250 | 650 |
| Belle of Georgia | | | | 1090 | 9313 | 1644 | Foster | | 181 | | 1509 | 1870 | 1105 |
| Carman | | | | 784 | 3985 | 2754 | Fitzgerald | | | | 839 | 2240 | 1570 |
| Champion | | | | 2995 | 273 | 1897 | Frances | | | | 2503 | 1724 | 1315 |
| Chairs Choice | | | 1747 | 8963 | 20589 | 7079 | Miss Lolo | 4 | 10 | 10 | 230 | 250 | |
| Crawford Early | | | | 511 | 110 | 736 | Matthew's Beauty. | | | | 120 | 700 | 600 |
| Crawford Late. | 1542 | 2398 | 2577 | 6111 | 4149 | 1278 | New Prolific | | | | 3120 | 1860 | 1175 |
| Capt. Ede | | 195 | 280 | 525 | 390 | 175 | Old Mixon Free | | 1173 | 813 | 1521 | | |
| Connett's Early | | | 230 | | **** | **** | Reeves Favorite | | 994 | 408 | 1262 | 380 | |
| Early Davidson | 5 | 17 | 67 | 150 | 170 | 70 | Stephen's R. R. | | 1222 | | | 165 | 600 |
| Dover | | 10 | 10 | 103 | 350 | 575 | Steadley | | | 170 | 180 | 110 | 50 |
| Elberta | | 921 | 2803 | 7327 | 13916 | 20137 | Scott's Nonpareil . | | 20 | 60 | 200 | 320 | |
| Eureka | 30 | 30 | 47 | 150 | 160 | 55 | Slappey | | | 14 | 490 | 200 | 250 |
| Early Tillotson | 20 | 360 | 140 | 270 | 190 | 75 | William's Fav | | 60 | 25 | 10 | 20 | 50 |
| Early Rivers | | 350 | | | | **** | Wheeler's Late | | 50 | 30 | 20 | 20 | |
| Early Michigan | | | | | 500 | 500 | RAY PEACH | 1000 | 1000 | 1000 | 1000 | 2000 | 1000 |
| | | | | | | | | | | | | | |

PEAR TREES on FRENCH ROOT

| | 6 to 7 ft. | 5 to 6 ft. | 4 to 5 ft. | 3 to 4 ft. | | 6 to 7 ft. | 5 to 6 ft. | 4 to 5 ft. | 3 to 4 ft. |
|-----------------|------------|------------|------------|------------|----------------|------------|------------|------------|------------|
| Kieffer | 2000 | 1500 | 500 | 500 | Lawrence | | 200 | **** | |
| Bartlett | | 1500 | 1500 | | Flemish Beauty | 250 | 250 | | **** |
| Beurre D' Anjou | 100 | 100 | 100 | 100 | Wilder | 50 | 50 | | **** |
| LeConte | 200 | 500 | 300 | 100 | Krull | 50 | 50 | **** | **** |
| Belle Lucrative | 100 | 100 | 100 | | Sheldon | 50 | 50 | | |
| Garber | | 500 | 300 | 300 | Vicar | 50 | 50 | | |
| Koonce | | | 120 | | Dutchess Dwarf | | | 500 | |

PLUM TREES

| | 5 to 6 ft. | 4 to 5 ft. | 3 to 4 ft. | 2 to 3 ft. | | 5 to 6 ft. | 4 to 5 ft. | 3 to 4 ft. | Z to 3 ft |
|-----------|------------|------------|------------|------------|-----------------------------|------------|------------|------------|-----------|
| Abundance | | | 500 | 390 | Climax | | 304 | 350 | . 110 |
| Burbank | | 900 | 780 | 655 | Hale | | 380 | 195 | |
| Red June | | 1740 | 800 | | | | | | |
| Wickson | 880 | | 1200 | 1000 | Early Richmond Cherry Trees | 1500 | 1000 | 1000 | 1000 |

46 Varieties Strawberry Plants

118 Varieties Apple Trees

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